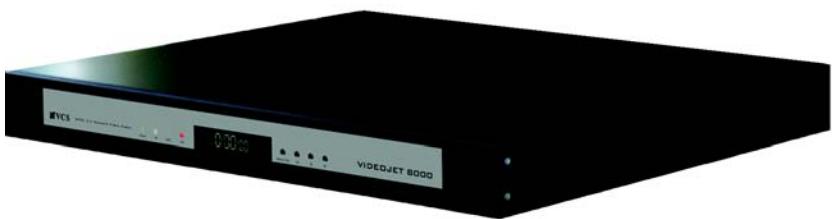


VIDEOJET 8000

User Guide



Copyright

This user guide is the intellectual property of VCS and is protected by copyright. All rights reserved. No part of this document may be reproduced or transmitted for any purpose, by whatever means, electronic or mechanical, without the express written permission of VCS.

Release: August 2004 (Software version 1.1)

Copyright © 2004 VCS Video Communication Systems AG

Note

This user guide has been compiled with great care, and the information it contains has been thoroughly verified. The text was complete and correct at the time of printing. Due to further product development, the contents of the user guide may change without prior notice. VCS accepts no liability for damages resulting directly or indirectly from errors, omissions or discrepancies between the user guide and the product described.

Trademarks

All hardware and software product names used in this document are believed to be trademarks or registered trademarks of their respective owners and must be treated accordingly.

Contents

Chapter 1 Preface

Conventions	5
Intended use	6
EU guidelines	6
Rating label	6

Chapter 2 Safety Information

Electrical shock hazard	7
Installation and operation	8
Maintenance and repair	8

Chapter 3 Product Description

Supplied components	9
System requirements for setup	9
Configuration requirements	10
Operational requirements	10
Overview of functions	11
Rear panel connectors	14
Front panel	15

Chapter 4 Installation

Control cabinet installation	18
Connections	20
Switching on/off	22
Setup using a terminal program	23

Chapter 5 Configuration using a Web Browser

Connecting	27
Choosing the configuration mode	29
Installation Wizard	31
Device overview	34
Expert Mode	71
Function test	111

Chapter 6 Operation

Operation with Microsoft Internet Explorer	113
Saving snapshots	118
Recording video sequences	118
Recordings in progress	119
Playback of recorded sequences	120
Backup	122
MPEG viewer installation	123
Hardware connections between VCS units.....	124
Establishing the connection.....	124
Closing the connection	126
Operation with decoder software.....	126
Front panel controls.....	127

Chapter 7 Maintenance and Upgrades

Testing the network connection.....	131
Repairs	131
Transfer and disposal	132

Chapter 8 Appendix

Troubleshooting	133
LEDs	135
RS232/RS422/RS485 interface.....	136
Glossary	137
Specifications	139

Chapter 9 Index

Preface

This user guide is intended for persons responsible for the installation and operation of VideoJet 8000. International, national and any regional regulations regarding electronics must be followed at all times. The user manual describes the installation and operation of the unit.

Conventions

In this manual, the following symbols and notation are used to draw attention to special situations:



Warning!

This symbol indicates that failure to follow the safety instructions described may endanger persons and cause damage to the unit or other equipment. It is associated with immediate, direct hazards.



Note

This symbol indicates tips and information for easier, more convenient use of the unit.

Intended use

The VideoJet 8000 network video server transmits video and control signals over data networks (such as Ethernet LANs and the Internet). The integrated hard drive enables the VideoJet 8000 to be used as a DVR. It is designed for use in CCTV systems. By incorporating external alarm devices, various functions can be triggered automatically. Other applications are not permitted.

In the event of questions concerning the use of the server which are not answered in this manual, please contact your local dealer or:

VCS Video Communication Systems AG

Forchheimer Strasse 4
90425 Nuremberg, Germany
Phone: +49 (0)911 9 34 56-0
Fax: +49 (0)911 9 34 56-66

info@vcs.com

EU guidelines

The VideoJet 8000 network video server complies with the specifications of EU Directives 89/336 (Electromagnetic Compatibility) and 73/23, amended by 93/68 (Low Voltage Directive).

Rating label

For exact identification of the unit, the model and serial number are inscribed on the rating plate on the bottom of the housing. Please note this information if necessary before installation so it available in case of questions or spare parts orders.

Safety Information

Electrical shock hazard

- Never attempt to connect the unit to any power network other than the type for which it was intended.
- Never open the casing!
- If a fault occurs, disconnect the unit from the mains supply and from all other devices.
- Install the unit only in dry, weather-protected areas.
- If safe operation of the unit cannot be ensured, remove it from service and secure it to prevent unauthorized start-up. Safe operation is no longer possible, for example,
 - if there is visible damage to the unit or power cables,
 - if the unit no longer works properly,
 - if the unit has been exposed to rain or moisture,
 - if foreign matter has infiltrated the unit,
 - after long storage under adverse conditions or
 - after exposure to extraordinary transport stress.

In such cases, have the unit checked by VCS.

Installation and operation

- Relevant electrical codes and guidelines must be complied with at all times during installation.
- Before installing or operating the unit, make sure you have read and understood the documentation for the other equipment connected to the system, such as cameras. It contains important safety instructions and information about permitted uses.
- Perform only the installation and operating steps described in this manual. Actions beyond these may lead to personal injuries, property damage or damage to the equipment.

Maintenance and repair

- Never open the casing of the VideoJet 8000 yourself, there are no user serviceable parts inside.
- Ensure that all maintenance or repair work is performed only by qualified personnel (electrical technicians).

Product Description

Supplied components

- Network video server VideoJet 8000
- Power cable
- RS232 null modem cable
- Mounting kit for installation in 19" racks
- The quick start guide "First Steps" in English and German
- VCS product CD with the following content:
 - The quick start guide "First Steps" in English and German
 - User guide in English and German
 - MPEG-ActiveX control from VCS
 - MPEG viewer (DVD player)
 - DirectX control
 - Microsoft Internet Explorer
 - Microsoft Virtual Machine
 - Adobe Acrobat Reader
- 3.5" hard drive

System requirements for setup

- Computer with Microsoft Windows 98/2000/XP operating system and network access and
- Microsoft Internet Explorer (version 5.5 or later) or an available serial port and terminal software

Configuration requirements

- Computer with Microsoft Windows 98/2000/XP operating system and network access and
- Microsoft Internet Explorer (version 5.5 or later) or decoder software, such as VIDOS from VCS

Note

Make sure the graphic card is set to 16 or 32 bit color depth and the Microsoft Virtual Machine is installed on your computer. If necessary, the required software and controls can be installed from the CD provided (see the list of components supplied, 9).

Operational requirements

- Computer with Microsoft Windows 98/2000/XP operating system and network access and
 - Microsoft Internet Explorer (version 5.5 or later) or decoder software, such as VIDOS from VCS
- or
- MPEG-2 capable hardware decoder from VCS (such as VIP 1000) as a receiver and a connected video monitor

Note

Make sure the graphic card for receiving on the computer monitor is set to 16 or 32 bit color depth and the Microsoft Virtual Machine is installed on the computer. If necessary, the required software and controls can be installed from the CD provided (see the list of components supplied, 9).

Overview of functions

Network video server

The VideoJet 8000 is a network video server for 8 independent video channels. Its primary function is to encode video and control data for transmission over an IP network. The VideoJet 8000 encodes up to 8 nonmultiplexed data streams in MPEG-2 format (DVD standard) and does so without compromising image quality. The use of existing networks means that integration with CCTV systems or local networks can be achieved quickly and easily.

The VideoJet 8000 is designed for tabletop operation and installation in control cabinets. The supplied mounting kit makes installation in a 19" rack fast and easy.

Two units, a VideoJet 8000 as the transmitter and a VIP 1000 as the receiver, can form a stand-alone system for data transfer without a PC. The system can be expanded to include additional transmitters and receivers so that video images from one transmitter can be received simultaneously on a number of receivers.

Receiver

Receivers can be MPEG-2 capable hardware decoders from VCS (such as the VIP 1000), computers with decoding software installed, such as VIDOS from VCS, or Microsoft Internet Explorer.

Video encoding/multicast

The VideoJet 8000 works with the MPEG-2 video compression standard. Thanks to efficient encoding, the data rate remains low even with high image quality and can also be adapted to local conditions with great flexibility. It can do this while supporting simultaneous encoding on all 8 video channels.

In suitably configured networks, the multicast function enables simultaneous, real time transmission to multiple receivers. The prerequisite for this is that the UDP and IGMP protocols be implemented on the network.

DVR

The integrated hard drive enables the VideoJet 8000 to be used as a digital video recorder for local long-term recording. Replay and backup are possible while recording is in process (triplex function).

The VideoJet 8000 supports ANR technology, which ensures seamless, gap-free storage with the VIDOS-NVR, the network video recorder from VCS, even when the network fails.

Remote control

The VideoJet 8000 can remotely control external devices, such as pan and tilt heads or motorized zoom lenses, by transmitting control data via its bidirectional serial interface. This interface can also be used to transmit transparent data.

Configuration

The VideoJet 8000 can be configured with a browser on the local network (Intranet) or from the Internet.

Similarly, firmware updates and rapid loading of equipment configurations are also possible.

Snapshots

Individual video frames (snapshots) can be called up in JPEG format by the VideoJet 8000, stored on the computer hard drive or be displayed in a separate browser window.

Backup

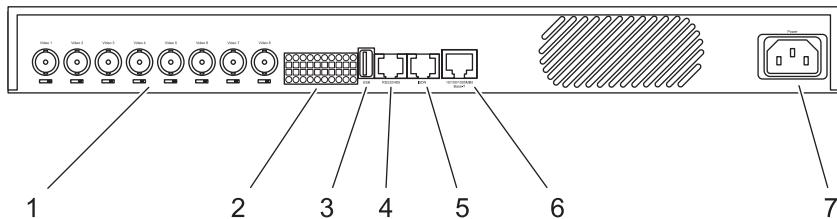
Video sequences can be saved to the computer's hard drive from either the live video page or the local hard drive mode with just a mouse-click.

Summary

The main functions of the VideoJet 8000 can be summarized as follows:

- Video and data transmission over IP data networks
- Multicast function for simultaneous picture transmission to multiple receivers
- 8 independent, analog BNC video inputs FBAS (PAL/NTSC)
- Video encoding using the MPEG-2 (DVD quality) international standard
- Integrated Ethernet interface (10/100/1000 Base-T)
- Integrated ISDN connection (for future functional extensions)
- USB interface (for future functional extensions)
- Transparent, bidirectional data channel using a serial interface:
RS232, RS422 or RS485
- Local long-term recording on the integrated 3.5" hard drive
- Remote control of all built-in functions via TCP/IP
- Password protection to prevent unauthorized connection or configuration changes
- 10 relay inputs for external sensors (such as door contacts)
- Event-driven, automatic connection in case of an alarm
- Integrated video sensor for motion alarms
- Video signal monitoring
- Fast, convenient configuration using a Web browser
- Firmware update through flash memory

Rear panel connectors



1 8 video inputs, **Video 1 to Video 8**

BNC jacks for connecting video sources,
each with a switch for 75 ohm terminating resistance

2 10 alarm inputs, **IN1 ... IN10**

push-in terminals for connecting external signal sources or switches

3 **USB port**

for future functional extensions

4 **RS232/485 serial interface**

RJ45 jack for transmitting control data (RS232, RS422 and RS485 protocols)
and for configuration with terminal software

5 **RJ45 jack for **ISDN****

for future functional extensions

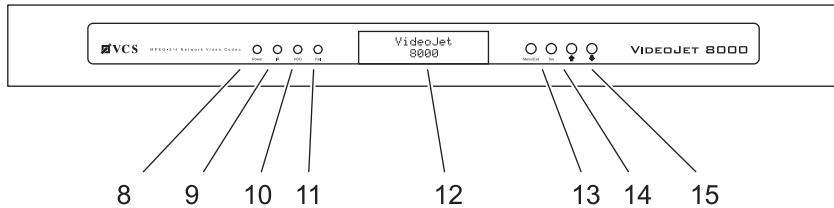
6 **RJ45 jack **10/100/1000 MBit Base-T****

for connecting to an Ethernet LAN

7 **Power receptacle**

for connecting the power cable

Front panel



8 Power LED

lit green when ready for operation

9 IR diode

infrared receiver (for future functional extensions)

10 HDD LED

blinks red during data transfer from and to the hard drive

11 Failure LED

blinks red in the event of a hardware error

12 Display

for showing the operating parameters

13 Menu/Exit button

for showing or hiding the configuration menu

14 Set button

for saving changes to the operating parameters
(for future functional extensions)

15 Arrow keys

for navigation in the configuration menu

Further information on the LEDs can be found on page 135.

Installation

The VideoJet 8000 is designed for tabletop operation and installation in control cabinets. The supplied mounting kit makes installation in a 19" rack fast and easy.

Four self-adhesive, anti-slip rubber feet are included with delivery. These can be attached to the bottom of the unit.



Warning!

The unit is intended for indoor use only. Choose a suitable location for installation where the equipment will not be subject to extremes of temperature or humidity. The ambient temperature must be between 0 and +50 °C. The relative humidity should not exceed 80% (no condensation).

The unit generates heat during operation. Ensure that there is adequate ventilation and also that there is enough clearance between the unit and heat-sensitive objects or equipment.

Please ensure the following conditions for installation:

- Do not mount the unit close to heaters or other heat sources. Avoid locations in direct sunlight.
- Allow sufficient space for running cables.
- Ensure that the unit has adequate ventilation. For cabinet installation of multiple units, pay particular attention to the overall thermal load.
- Use only the cables supplied for connection, or appropriate cables resistant to electromagnetic interference.
- Position and run all cables so that they are protected from damage, and provide strain relief where needed.

Control cabinet installation

The VideoJet 8000 is ready for installation in a 19" rack. The necessary mounting kit is included with the delivery.



Warning!

When installing in cabinets, ensure that each unit has adequate ventilation.

The free space around the unit must be at least 5 cm on the right and left sides and at least 10 cm in the back.

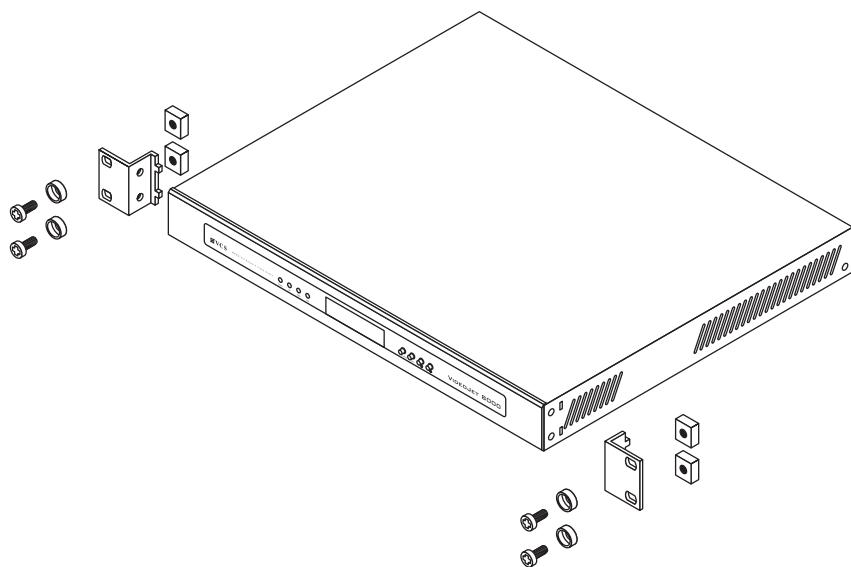
The ambient temperature must be between 0 and +50 °C. The relative humidity should not exceed 80%.

The unit generates heat during operation. Ensure that there is enough clearance between the unit and heat-sensitive objects or equipment.

When installing additional units, direct contact with the VideoJet 8000 is permitted if the surface temperature of the adjacent units does not exceed +50 °C.

Unit installation

- Remove both screws on the front part of the right and left sides of the unit.
- Place both brackets from the mounting kit in the recesses by the screw holes on the housing and attach them firmly using the four screws.
- Set the unit in the cabinet and attach the brackets to the frame using the four screws, washers and lock nuts included in the kit.
- Insert the connector of the power cable in the **power** receptacle on the rear side of the unit.

Installation overview

Connections

Cameras

Up to 8 standard video sources (CCTV cameras) can be connected to the VideoJet 8000. Any cameras or other video sources that produce a standard PAL or NTSC signal are suitable for connection.

- Connect each of the cameras or other video sources with a video cable (75 ohm) to the BNC jacks **Video 1** to **Video 8**.
- Set the slide switch (**75 Ω**) under the BNC jack to **●** to terminate the video input if the signal is not passed on further.

Network

The VideoJet 8000 can be connected to a 10/100/1000 Base-T network directly or via a hub. Use a standard UTP Category 5 cable with RJ45 connectors for this.

- Attach the network cable to the **10/100/1000 MBit Base-T** jack.

Alarm inputs

The alarm inputs are used to connect to external alarm devices, such as door contacts or sensors. Given the appropriate configuration, an alarm generator can, for example, trigger an automatic connection between the VideoJet 8000 and a remote location.

A voltage free closing contact or switch can be used as an actuator.

Note

Use a bounce-free contact system as the actuator if at all possible.

- Remove the terminal block from its receptacle.
- Connect the lines to the terminals and check that the connections are secure.
- Reconnect the terminal block to the unit.

Data interface

The bidirectional data interface is used to control connected devices, such as a dome camera with a motorized lens. During setup the interface is used to connect to the data terminal using the RS232 protocol.

The interface supports RS232, RS422 and RS485 transmission protocols.

The selection of controllable devices is growing constantly. The manufacturers of this equipment can provide specific information on installation and control.



Warning!

Make use of the device documentation when installing and operating a device to be controlled. It contains important safety instructions and information about permitted uses.

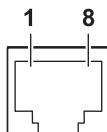


Note

The transmission of transparent data is only possible when a connection has been established.

RJ45 connector pin assignments

The pin assignments depend on the protocol used.



Pin	RS232 Protocol	RS422/485 Protocol
1	RxD (receive data)	RxD+ (receive data plus)
2	CTS (clear to send)	RxD- (receive data minus)
3	–	–
4	–	–
5	GND (ground)	GND (ground)
6	–	–
7	TxD (transmit data)	TxD- (transmit data minus)
8	RTS (ready to send)	TxD+ (transmit data plus)

Switching on/off

Power connection

The VideoJet 8000 package includes a power cable with a computer style receptacle.



Warning!

Use suitable facilities where necessary to ensure that the mains supply is free of interference such as voltage surges, spikes or brownouts. Only connect the VideoJet 8000 to the mains supply after all other connections have been established.

The VideoJet 8000 has no power switch. When the unit is connected to power, it is ready for operation after startup.

- Attach the connector of the power cable to the **Power** socket.
- Plug the power cable into a fused power socket. The green **Power** LED on the front panel of the VideoJet 8000 should be lit.
- After startup, the unit is ready for operation when "**VideoJet 8000**" appears on the display.

If the network connection is in order, the green LED for the RJ45 jack **10/100/100 MBit Base-T** on the back of the unit should be lit. The flashing orange LED indicates data traffic on the network.

Setup using a terminal program

Data terminal

A data terminal may be connected to the VideoJet 8000 for setup and local control. The data terminal usually consists of a computer with suitable terminal software. A serial cable is provided with the delivery for making the connection.

HyperTerminal, a communications accessory included with Microsoft Windows, can be used as the terminal program.

Note

Information on installing and using of HyperTerminal can be found in the user guides or online help for Microsoft Windows.

- Before working with the terminal program, disconnect the VideoJet 8000 from the data network.
- Connect the **RS232/485 RJ45** connector of the VideoJet 8000 to an available serial port on the computer.

Configuring the terminal

To establish communication between the terminal program and the VideoJet 8000, the transmission parameters must be defined properly. The following values should be set in the terminal program:

- 19,200 Bit/s
- 8 data bits
- No parity check
- 1 stop bit
- No protocol

Command entry

After the connection has been established, you must enter a user name. After that you can access the main menu. You can call up additional submenus and functions using the on-screen commands.

- If necessary, turn off the local echo so that entered values are not repeated on the screen display.

- Enter only one command at a time.
- After entering a value (such as an IP address), re-check the entry before pressing the Enter key to send the data to the VideoJet 8000.

Assigning an IP address

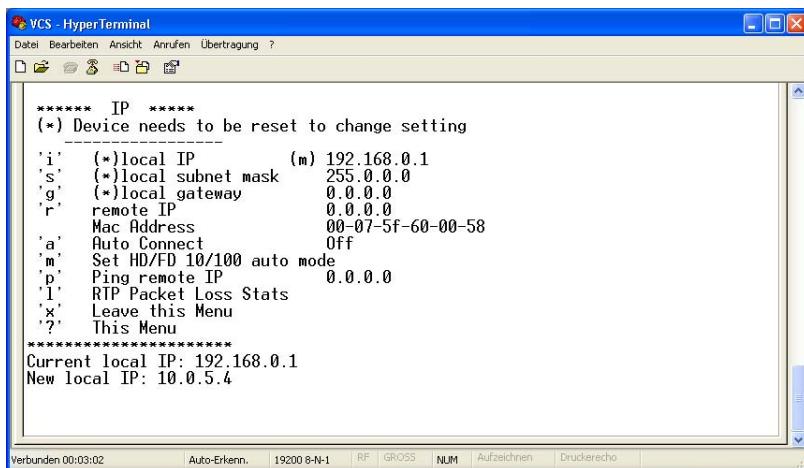
To operate the VideoJet 8000 on a network, an IP address valid for the network must be provided.

The following default address has been pre-set at the factory: **192.168.0.1**

Note

The new addresses will only be in effect after restarting.

- Start up a terminal program such as HyperTerminal.
- First enter `?` and then `service` as the `user`. The main menu will be displayed.
- Enter the command `i` twice, in order to open the IP menu and then display the current IP address.



- Enter the desired IP address and press Enter. The new IP address will be shown.
- If necessary, enter the command `s` and a new subnet mask.
- Interrupt the power to the VideoJet 8000 briefly (pull the power plug and replace it after a few seconds) to restart the unit.

Additional parameters

Using the terminal program, you can check other basic parameters and modify them where necessary. Use the on-screen commands displayed in the various submenus for this purpose.

Configuration using a Web Browser

Connecting

The integrated HTTP server allows the unit to be configured over the network using a Web browser. This option offers far more possibilities and is more convenient than configuration using terminal software. It also allows live video to be displayed.

Note

In order for the computer to decode live video images, the special ActiveX control must be installed. The latest version of the ActiveX control can be obtained from VCS customer service or from the download pages on the Internet site at www.vcs.com.

Make sure the graphic card is set to 16 or 32 bit color depth and the Microsoft Virtual Machine is installed on your computer. If necessary, the required software and controls can be installed from the CD provided (see the list of components supplied, 9).

Instructions for using the Web browser will be found in its online help.

System requirements

- Microsoft Internet Explorer (version 5.5 or higher)
- Monitor resolution 1024 x 768 pixels
- Network access (intranet or Internet)

MPEG decoder installation

Note

In order to decode MPEG encoded video data, an appropriate MPEG decoder must be installed on the computer, such as that used for playing DVD movies. If necessary, the required software and controls can be installed from the CD provided (see the list of components supplied, 9).

- Insert the CD into the CD-ROM drive of the computer. The CD will start automatically. If the CD does not start automatically, open the root directory of the CD in Windows Explorer and double click **MPEGAx.exe**.
- Follow the instructions on the screen.

Establishing the connection

The VideoJet 8000 must be provided with a valid IP address to operate on your network.

The following default address has been pre-set at the factory: **192.168.0.1**

- Start the Web browser.
- Enter the IP address of the VideoJet 8000 as the URL. The connection will be established, and after a short time the Livepage with the video image will appear.



Note

If the connection cannot be established, this may be because the unit selected is already busy with another remote station. Depending upon the

network configuration and the individual units, a transmitter can serve up to five receivers at the same time.

VideoJet 8000 password protection

If the VideoJet 8000 is password-protected against unauthorized access, a password dialog will appear first.



Note
Configuration work can only be performed on a password-protected VideoJet 8000 unit if the **service** user is logged on.

- Enter the user name and the associated password in the appropriate fields.
- Click **OK**. If the password is entered correctly, the Livepage with the video image will be shown.

Choosing the configuration mode

There are various options for configuring the VideoJet 8000 or checking the current setup:

- the Installation Wizard,
- the overview and
- expert mode.

All settings are stored in the VideoJet 8000 memory, and they are preserved even if the power is interrupted.

Installation Wizard

The installation wizard is recommended for initial setup of the unit. It takes you step by step through the necessary settings. This ensures that key settings for proper operation are not overlooked. Moreover, each step offers brief instructions that help with installation.

Device overview

The most important parameters can be displayed in groups for a quick overview. The settings can also be changed here. However, a sequence is not specified here.

Expert mode

Expert mode is recommended only for experienced operators or system administrators. All unit parameters can be accessed in this mode. Operations that affect the basic functionality of the unit (such as software updates) can only be performed in expert mode.

Beginning configuration

Click the **Settings** link in the top part of the Livepage. A new page will be opened, and the required installation mode can be selected on the menu line:



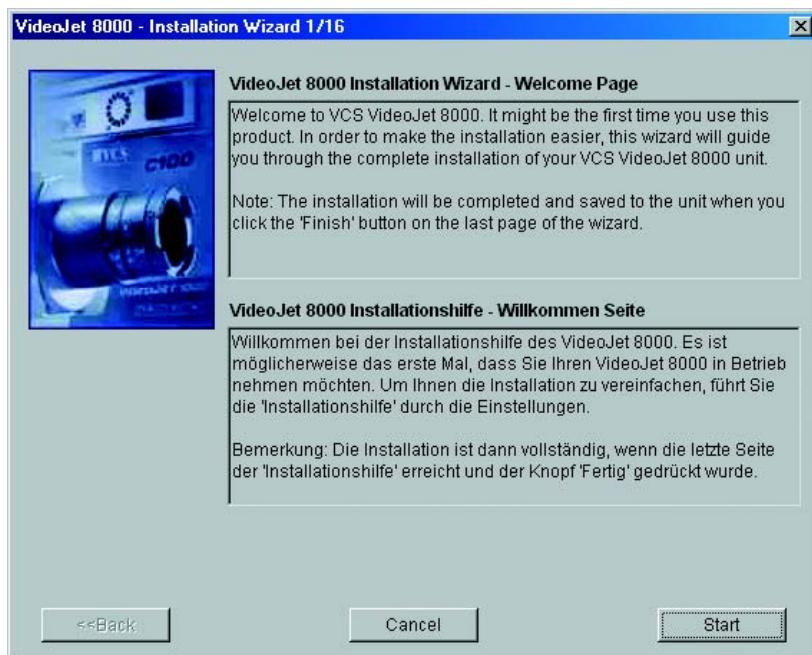
Installation Wizard

The VideoJet 8000 Installation Wizard guides you step by step through the necessary settings.

Starting the Installation Wizard

The Installation Wizard can be started by clicking the **Settings** link on the Livepage.

- Click the **Installation Wizard** link. A new page will appear.
- Click the button with the wizard icon in the **Installation Wizard** field. The Installation Wizard will be opened to the first page.
- Click **Start** to begin the wizard. The next page of the installation wizard will appear:



General procedure

The pages of the Installation Wizard will be shown in sequence, allowing you to work comfortably. The upper part of the page always contains information about the settings options. The current settings are shown in the lower area. You can change settings by entering the desired value in a text field or choosing it from a list. The navigation buttons for the Installation Wizard are at the bottom of the window. You can switch between pages of the Wizard at any time.

- Always read the information in the upper part of the window first.
- Click in the text fields to enter values or use the other controls available, such as buttons, check boxes or list fields.
- Click **Next >>** to go to the next step.
- Click **<< Back** to look at the previous step again.
- Click **Cancel** to interrupt the process and close the Installation Wizard.

Applying the changes

Changes made with the Installation Wizard only take effect after the **Finish** button on the last page is clicked.

Clicking **Cancel** causes the original settings to remain unchanged.

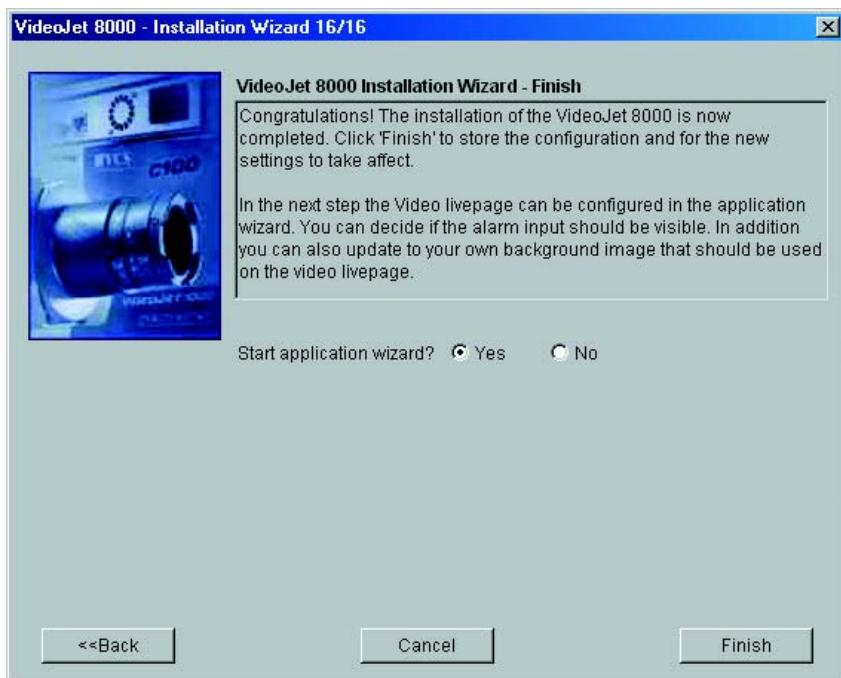


Warning!

Always continue with the Installation Wizard until the last page is reached. Only there is it possible to save the changes by clicking **Finish**.

Other settings

The last page of the Installation Wizard offers the option to start the Application Wizard for configuring the Livepage.



- Click **Yes** to start the Application Wizard.
- Click **Finish** to close the Installation Wizard. The settings will be saved and loaded on the VideoJet 8000, and the Application Wizard will start immediately thereafter.

It works similar to the Installation Wizard.

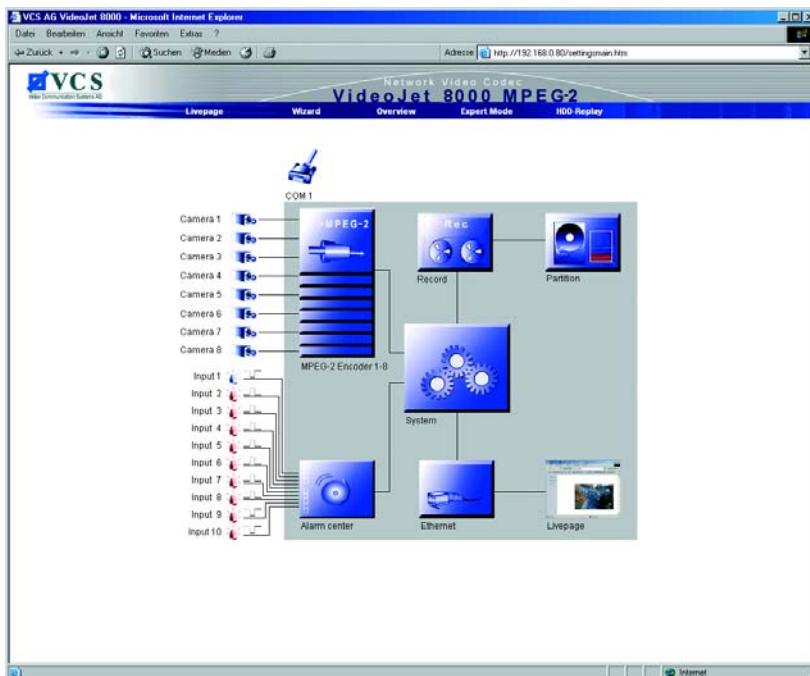
Device overview

The device overview gives you a graphical overview to review the individual areas of the configuration. The individual configuration parameters are grouped and displayed in separate windows.

Opening the overview

The graphical overview can be accessed by clicking **Settings** on the Livepage.

- Click the **Overview** link. The page with the graphical overview will appear.



General procedure

After the page with the graphical overview is opened, the individual setting groups can be accessed directly.

- Click one of the group graphics. A new window will open.
- Click in the text fields to enter values or use the other controls available, such as buttons, check boxes or list fields.
- Click the close button (X) in the window title bar to close the window without saving the changes.

Applying changes

After making changes in a window, click **Set** to load the new settings on the device and save them there.

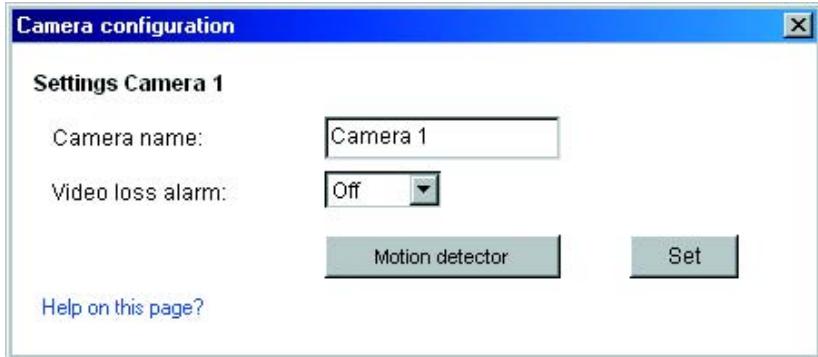


Warning!

Save the changes made in each window by clicking **Set**. When **Set** is clicked, only the changes in that particular window are saved.

A description of the individual windows that can be accessed via the group graphics of the overview is given below.

Camera configuration



Note

Each camera input must be configured separately. To do this, click the camera icons one after another. The configuration page is identical for all the inputs.

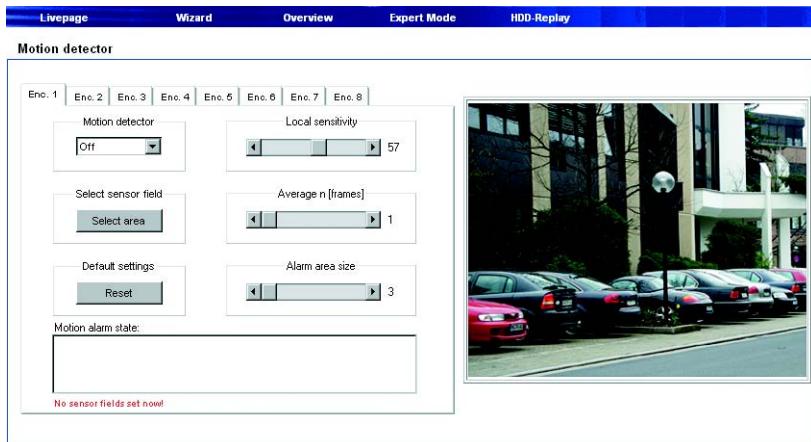
Camera name:

Enter the desired camera name here. The camera name makes it easier to identify the remote camera location, in the event of an alarm for example. The camera name will also be shown on the video image if so specified in the configuration (see page 76). It is also used by VIDOS, the VCS software for administering video monitoring systems. The camera name helps to identify the camera or its location in the program. Enter an unambiguous, understandable name in the field.

Video loss alarm:

Select **On** to monitor the video source (camera). If the signal is not present, the VideoJet 8000 triggers an alarm.

Motion detector



The VideoJet 8000 has an integrated video sensor which can detect changes in the signal. Such changes are due primarily to movements in the camera's field of view.

The video sensor can be configured separately for each encoder, i.e. for each camera connected.

The sensitivity of the video sensor can be adjusted, so an alarm is generated only if specified values are exceeded.

In order for the sensor to function, the following conditions must be met:

- The motion detector must be enabled.
- At least one cell must be activated.
- The individual parameters must be set for the operating environment and the desired responses configured accordingly.
- The sensitivity must be set to a value greater than zero.



Warning!

Reflections of light (on glass surfaces, etc.), switching lights on or off or changes in the light level caused by cloud movement on a sunny day can trigger unintended responses from the video sensor and generate false alarms. Run a series of tests under day and night conditions to ensure that the sensor works as intended.

For indoor surveillance, ensure constant lighting of the areas during the day and at night.

Uniform surfaces without contrast can trigger false alarms even with constant lighting.

- Click **Motion Detector** to open the configuration page for the video sensor.
- Click one of the tabs to access the configuration of the corresponding encoders (or camera).
- Click **Reset** in the **Default settings** area to revert the settings to their default values.
- Click the remaining tabs to access and edit the configurations of additional encoders.
- After you are finished with configuration, click **Back to Overview page!** to return to the graphical overview of the system.

Motion detector

Select **On** to activate the video sensor.

Sensor fields

The areas of the image to be monitored by the video sensor can be selected. The video image is subdivided into 192 square sensor fields. Each of these fields can be activated or deactivated individually. If it is necessary to exclude particular regions of the camera's field of view from monitoring due to continuous movement (by a tree in the wind, etc.), the relevant fields can be deactivated.

- Click **Select area** to configure the sensor fields. A new window will open.
- If necessary, click **Clear all** first to clear the current selection (fields marked red).
- Click the fields to be activated. Activated fields are marked red.
- Click **Select all** to select the entire video frame for monitoring.

- Right-click any fields you wish to deactivate. "Inactive" fields are marked white.
- Click **Set** to save the configuration.
- Click the close button (**X**) in the window title bar to close the window without saving the changes.

Local sensitivity

The basic sensitivity of the video sensor can be adjusted to the environmental conditions of the camera.

The sensor reacts to variations in the brightness of the video image. The darker the observed area, the higher the value that must be selected.

- Adjust the sensitivity by dragging the scroll thumb to the desired setting.

Average [n frames]

You can define the number of frames for which a movement is monitored before generating an alarm. This helps prevent false alarms from events such as a bird flying across the surveillance area.

- Select the desired value by dragging the scroll thumb to the desired position.

Alarm area size:

You can specify the number of sensor fields that a moving object must cover to generate an alarm. This is to prevent objects that are too small from triggering an alarm.

The minimum setting is "1". This corresponds to one sensor field.

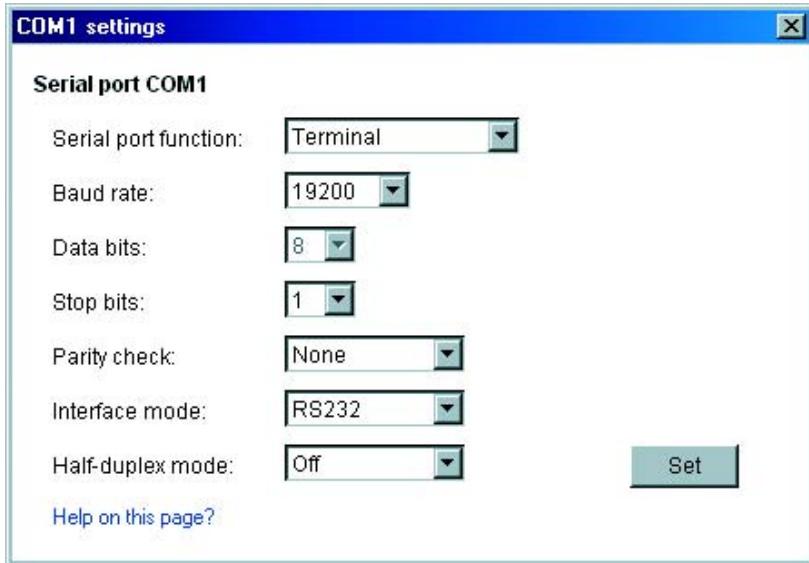
- Select the desired value by dragging the scroll thumb to the desired position.

Motion alarm status:

This field lists all the motion alarms and the date and time of their occurrence. The events for the currently selected camera input will be listed.

After adjusting the settings, the reaction of the VideoJet 8000 can be checked in the preview frame on the right side of the page. Sensor fields that are currently reacting to motion are marked red on the video image. Inactive sensor fields are marked green.

COM1 interface parameters



The **RS232/485** serial interface port can be configured to meet your requirements.

Serial port function:

Select a controllable device from the list. If you want to use the serial interface to transmit transparent data, select **Transparent**.

Note

After selecting a device, the remaining parameters in the window are set automatically and should not be changed.

Baud rate:

Select the value for the data transmission rate in Bit/s.

Data bits:

The number of data bits per character cannot be changed.

Stop bits:

Select the number of stop bits per character.

Parity:

Select the type of parity check.

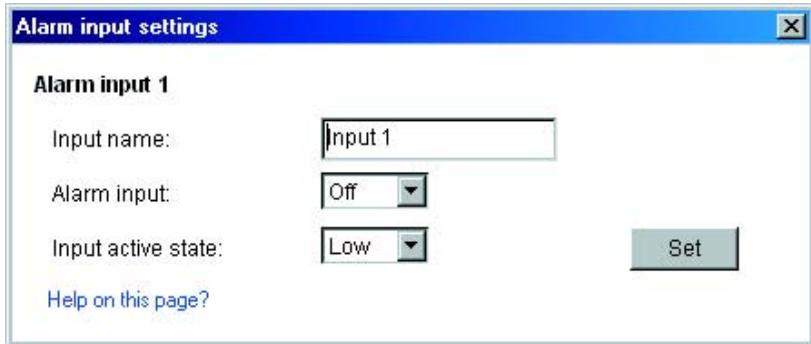
Interface mode:

Select the desired protocol for the serial interface.

Half-duplex mode:

Choose the setting appropriate for your application.

Alarm input settings



Note

The settings for the alarm inputs must be configured separately for each input. To do this, click the alarm icons in turn. The configuration page is identical for all the inputs.

Alarm input name:

You can enter a name for each alarm input, which is then displayed next to the icon for the alarm input on the video live page during the respective configuration (see page 106).

Alarm input active:

Select the option **On** in order to activate the alarm via the corresponding external alarm sensor. Otherwise, select **Off**.

Alarm input status:

You can choose whether the alarm is triggered by an **Active high** or **Active low** voltage level.

MPEG-2 encoder configuration



Encoder configuration

MPEG-2 Encoder settings

Preset parameter video encoder 1:	2MBPS low delay
Preset parameter video encoder 2:	2MBPS low delay
Preset parameter video encoder 3:	2MBPS low delay
Preset parameter video encoder 4:	3,5MBPS low delay
Preset parameter video encoder 5:	5MBPS low delay
Preset parameter video encoder 6:	2MBPS high quality
Preset parameter video encoder 7:	3,5MBPS high resolution
Preset parameter video encoder 8:	4,5MBPS low delay

Set

[Help on this page?](#)

Parameter values for the encoders:



Note

The settings for the encoders must be configured separately for each camera input. The numbering of the encoders corresponds to the labeling of the inputs on the back of the unit.

The MPEG-2 data transmission can be configured to suit the environment (for instance, network architecture, bandwidth, etc.).

Preconfigured profiles are provided, which reflect different priorities and environments.

■ 2MBPS low delay

2 MBit/s transmission rate with a low delay for image refresh

■ 3.5MBPS low delay

3.5 MBit/s transmission rate with a low delay for image refresh

■ 5MBPS low delay

5 MBit/s transmission rate with a low delay for image refresh

■ 2MBPS high quality

2 MBit/s transmission rate with high image quality

■ 3.5MBPS high quality

3.5 MBit/s transmission rate with high image quality

■ 5MBPS high quality

5 MBit/s transmission rate with high image quality

■ 3MBPS low delay

3 MBit/s transmission rate with a low delay for image refresh

■ 4.5MBPS low delay

4.5 MBit/s transmission rate with a low delay for image refresh

- Select the desired setting from the list.

Alarm connections



Alarm connections

Alarm settings

Connect on alarm:	<input type="button" value="Off"/>
No. of video receiver addresses:	<input type="button" value="1"/>
Live video receiver IP address:	<input type="text" value="0.0.0.0"/>
Remote receiver password:	<input type="text"/>
Live video auto-connect:	<input type="button" value="On"/>
Default camera:	<input type="button" value="1"/> <input type="button" value="Set"/>

[Help on this page?](#)

You can select a number of options for the response of the VideoJet 8000 to an alarm. In case of an alarm, the VideoJet 8000 can establish a connection to a predefined IP address (VCS hardware receiver or PC with receiver software) automatically. You can enter up to 10 IP addresses which will be selected in sequence by the unit until a connection is established. You can also choose which camera image should be automatically be displayed first on the receiver in the case of an alarm.

Connect on alarm:

Select **On** so that the VideoJet 8000 establishes a connection automatically to one of the pre-defined IP addresses in the event of an alarm.

Number of the alarm IP address:

Here you assign the numbering for the IP addresses to be contacted in the event of an alarm. The unit contacts the remote locations one after the other in the numbered sequence until a connection has been established.

Video receiver IP address:

For each number, enter the corresponding IP address of the desired receiver.

Remote receiver password:

If necessary, enter the password, if the remote location is protected by a password.

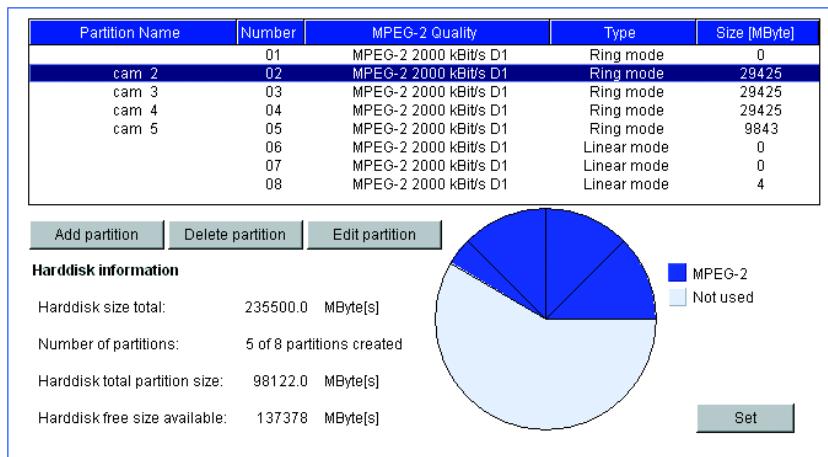
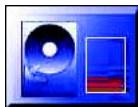
Live video auto-connect:

Select the option **On** if an active connection should be automatically reestablished to one of the previously specified IP addresses after each restart, e.g. after a connection breakdown or network dropout.

Select camera on alarm:

Here you can select the camera whose image will automatically be displayed first to the receiver after the alarm connection has been established. Depending on the system configuration, the receiver can then also select the other cameras.

Partition



The VideoJet 8000 hard drive can have up to eight partitions configured in the same way as is typical for computer hard drives. Parameters can be defined individually for each partition, such as size, quality, type of video recording and the compression standard used. Changes in these parameters result in a complete reorganization, causing saved data on the partition to be deleted.

The VideoJet 8000 requires a dedicated partition for the recordings of each camera connected. Each partition is linked to its own encoder or camera input: camera input **Video 1** with partition **01**, camera input **Video 2** with partition **02** etc. The assignments cannot be changed. Therefore all partitions are always shown in the list, regardless of whether a configuration is present or has been deleted. It is necessary to configure all eight partitions to record with eight cameras. The default configuration already has eight partitions configured.

All the partitions are listed in the table on the **Partition** page by name, sequential number, recording format/video quality, recording type and partition size.

This page also provides an overview of the hard drive information, such as total size, number of partitions, space used on the partitions and the number of unallocated megabytes of space.

A pie chart shows how much space is reserved for recordings or is unused.

General procedure



Warning!

Changes to the size or number of partitions will result in reorganization of the entire hard drive and the loss of all saved data. Therefore, before making changes to the parameters mentioned, check the recordings and back up the important sequences to your computer's hard drive.



Note

If there are already eight partitions configured, the Installation Wizard can only be started after at least one partition has been deleted.

When the Installation Wizard has started, a new information window will appear in which settings can be configured.

The entire wizard sequence must be completed once for each hard drive partition created. For this reason, the number of partitions to be created can be selected immediately after starting the Installation Wizard. The wizard will then restart automatically until all the partitions specified are configured.



Note

More than one partition with the same configuration can be created in a single process. Mark the checkbox **Apply same settings for all new partitions** on the initial page of the wizard.

- Click **Add partition** to start the wizard for partitions.



- Always read the information in the upper part of the window first.
- Click in the text fields to enter values or use the other controls available, such as buttons, check boxes or list fields.
- Click **Next >>** to continue to the next step.
- Click **<< Back** to look at the previous step again.

Applying the settings

Note

Continue with the Installation Wizard until the last page. Only there is it possible to save the settings by clicking **Finish**.

Settings made with the Installation Wizard only take effect after the **Finish** button on the last page is clicked.

Clicking **Cancel** causes the original settings to remain unchanged.

- After closing the Installation Wizard, click the **Set** button in the main window to send the changes to the unit and save them there.

Changing partition data

The configuration of the partitions can be changed at any time.



Warning!

Changes to a partition that affect the name, video quality, recording format or type or the number of alarms and the pre- and post-alarm recording times cause the partition to be reorganized and all saved data on that partition to be lost. Therefore you should back up all the important sequences to your computer's hard drive. If the total recording time or the size of the partition is changed, the entire configuration of the hard drive is lost.

The desired changes can be made in the **Partition Settings** window.

- Click to select the partition in the list that you want to change.
- Click **Edit partition**. The **Partition Settings** window will appear, showing the information for the selected partition.
- Make the desired changes.
- Click **Set** to save the changes.
- After closing the window, click the **Set** button in the main window to send the changes to the unit and save them there.

Deleting partitions

A partition can be deleted at any time.



Warning!

Deleting a partition causes the entire hard drive to be reorganized and all sequences stored on it to be lost. Therefore, before deleting partitions, check the recordings and back up the important sequences to your computer's hard drive.

- Click a partition in the list to select it.
- Click **Delete partition** to delete the selected partition. The partition will not be removed from the list. Rather, it remains without a name or size specification in order to give you a better overview.
- Click **Set** to send the changes to the unit and save them.

Recorder



Partition: cam 1 Stop Start Stop all Start all

Time recording Alarm recording Properties

	0:00	3:00	6:00	9:00	12:00	15:00	18:00	21:00	24:00
Monday									
Tuesday									
Wednesday									
Thursday									
Friday									
Saturday									
Sunday									

10:55:00 Select all Clear

Continuous recording frame rate: 2 Frames/s

Post alarm recording frame rate: All frames

Post alarm time: 0 sec

Used fileracks from partition: 13 / 128

Total used size from partition: 28543 MByte[s]

Recording status: Set

Here you set the parameters for recording on the local hard drive. Recording may be done continuously or only in the event of an alarm.

Partition:

Select the partition on which you want to record. Recording of the individual camera inputs is always done on dedicated partitions.

Timed recording

Here you can specify the times during which continuous recording on the hard drive takes place.

For each weekday, there are separate selection fields for each partition and thus for each camera input. You can select 16 individual recording periods for each weekday.

 **Note**

If a period has already been selected for the alarm recording, you cannot select this period for the timed recording (see **Alarm recording**, page 55).

- Left-click on the weekday on which the recording should start and hold down the mouse button.
- Now drag the selected field to the desired ending time for the recording and release the mouse.
- Right-click a selected time segment to delete it.
- Click **Select all** to select all time segments.
- Click **Delete all** to delete all selected periods.

Continuous recording frame rate:

You can select the frame rate for default recordings. Default recordings are those that are not triggered by an alarm. The option **All frames** is used to record at 25 fps (PAL) or 30 fps (NTSC) from a camera to its assigned partition. Other settings result in a lower frame rate and thus require less partition space. This means that the VideoJet 8000 can record for a longer period of time.

Post-alarm recording frame rate:

If an alarm occurs during a default recording, the frame rate can be changed automatically to the post-alarm rate. The option **All frames** is used to record at 25 fps (PAL) or 30 fps (NTSC) from a camera to its assigned partition. Other settings result in a lower frame rate.

Post-alarm time:

Select the period after an alarm during which recording should continue at a different frame rate.

Used file tracks from partition:

Up to 128 recording tracks are created automatically on a partition. Each new recording takes place on a separate track.

Selecting the option **Linear mode** means that no more new recordings are made after the 128 tracks have been used. Old recordings must be deleted before the tracks can be re-used. Selecting **Ring mode** means that the 129th recording will be written on the first track, so that the oldest recording is always overwritten by the newest.

Total used size from partition:

The display indicates the space currently used on the partition.

Free on this partition:

The display indicates the current amount of free space on the partition.

Recording status:

The icon indicates the recording status on this partition. When a recording is being made, the icon is animated.

Alarm recording

The screenshot shows the 'Alarm recording' tab of a configuration interface. At the top, there's a dropdown for 'Partition' set to 'cam 1' and several control buttons: Stop, Start, Stop all, and Start all. Below this is a timeline from 0:00 to 24:00, with days of the week listed vertically on the left. Green bars indicate active alarm recording periods. A specific time slot at 12:00 is highlighted with a yellow flower icon. Below the timeline are several configuration fields:

- Number of alarms: 0
- Pre alarm recording frame rate: 2 Frames/s
- Post alarm recording frame rate: All frames
- Pre alarm time: 0 sec
- Post alarm time: 0 sec
- Used alarmtracks from partition: 0 / 0
- Total used size from partition: 3 %
- Free on this partition: 28543 MByte[s]
- Recording status: (green camera icon)

A 'Select all' and 'Clear' button are located above the frame rate and post frame rate fields.

Here you can define the times when recordings are to be made by the selected camera on the hard drive in the event of an alarm. When recorded sequences are played back, the time of the alarm activation is specially marked so that it can be easily identified.

Just like for timed recording, you can select 16 separate time periods on each weekday for alarm recording. An alarm recording takes place only during the selected periods.

Note

If a time period has already been selected for the timed recording, you can no longer select it for alarm recording (see **Timed recording**, page 52).



Warning!

For alarm recordings, alarm tracks must be set up on the desired partition (see **Number of alarm tracks**, page 56).

The VideoJet 8000 uses a special recording mode for alarm recording to optimize the use of storage capacity. As soon as a time slot begins for the alarm recording, continuous recording starts on a segment the size of a complete alarm sequence (pre- and post-alarm). This segment on the partition works like a ring buffer and is overwritten again and again until an alarm is actually triggered. After that, recording on this segment will go on for the time predefined for post-alarm recording, and then a new segment will be used in the same way. For this reason the recorded alarm file is always saved in its full length to the partition and the recording space required for each alarm recording can be calculated easily.

Note

When the time slots for default and alarm recording overlap, the default recording has priority.

Number of alarm tracks:

Here you set the number of alarm tracks on the partition. One alarm event can be recorded on each alarm track. The specified number of alarms can be recorded and archived accordingly. A partition can contain a maximum of 128 alarm recordings. If the option **Ring mode** is set for the partition, the predefined number of the latest alarm recordings will be stored. If the option **Linear mode** is set, recording will stop as soon as all the alarm tracks have been written.

Pre-alarm recording frame rate:

You can select the frame rate for pre-alarm recording. The option **All frames** is used to record at 25 fps (PAL) or 30 fps (NTSC) from a camera to its assigned partition. Other settings result in a lower frame rate.

Post-alarm recording frame rate:

You can select the frame rate for alarm recording. The option **All frames** is used to record at 25 fps (PAL) or 30 fps (NTSC) from a camera to its assigned partition. Other settings result in a lower frame rate.

Pre-alarm time:

Select the period to be covered by the pre-alarm recording.

Post-alarm time:

Select the duration of the alarm recording.

Used alarm tracks from partition:

The display indicates how many of the alarm tracks are already used.

Total used size from partition:

The display indicates the space currently used on the partition.

Free on this partition:

The display indicates the current amount of free space on the partition.

Recording status:

The icon indicates the recording status on this partition. When a recording is being made, the icon is animated.

Settings

Partition: cam 1 Stop Start Stop all Start all

Time recording | Alarm recording | Properties

Partition name: cam 1 Note: This partition will be re-organized if any properties on this partition are changed. Previous recordings on this partition will be lost. Please backup the video data first.

Encoder number: 1

Type of recording: Ring mode

Video recording: MPEG-2

Recording datarate: 2000 kBits/s Recording resolution: D1

Alarm input sources:

<input type="checkbox"/> Alarm input 1	<input type="checkbox"/> Alarm input 2	<input type="checkbox"/> Alarm input 3	<input type="checkbox"/> Alarm input 4
<input type="checkbox"/> Alarm input 5	<input type="checkbox"/> Alarm input 6	<input type="checkbox"/> Alarm input 7	<input type="checkbox"/> Alarm input 8
<input type="checkbox"/> Alarm input 9	<input type="checkbox"/> Alarm input 10		
<input type="checkbox"/> Motion alarm 1	<input type="checkbox"/> Motion alarm 2	<input type="checkbox"/> Motion alarm 3	<input type="checkbox"/> Motion alarm 4
<input type="checkbox"/> Motion alarm 5	<input type="checkbox"/> Motion alarm 6	<input type="checkbox"/> Motion alarm 7	<input type="checkbox"/> Motion alarm 8
<input type="checkbox"/> Video loss 1	<input type="checkbox"/> Video loss 2	<input type="checkbox"/> Video loss 3	<input type="checkbox"/> Video loss 4
<input type="checkbox"/> Video loss 5	<input type="checkbox"/> Video loss 6	<input type="checkbox"/> Video loss 7	<input type="checkbox"/> Video loss 8

Partition total size: 29425 MByte[s]

Remaining for recording: 1 Day[s] 17 Hour[s] 37 Minute[s]

Format Set

You can view the current parameters for each selected partition and change them as required in the recording scheduler. At the same time, you can activate the various alarms which must be taken into account during the recording. You can also set the data rate for the recording here.



Warning!

Changes to a partition that affect the name, video quality, recording format or type or the number of alarms and the pre- and post-alarm recording times cause the partition to be reorganized and all saved data on that partition to be lost. You should therefore back up all important sequences to the hard drive of the computer before making such changes.

Partition name:

Here you can enter a new name for the partition if needed.

Encoder number:

This shows information about the number of the associated encoder. The number corresponds to the respective camera input on the back of the unit.

Type of recording:

You can change the recording mode as required. In **Ring mode** recording will continue indefinitely. When the maximum hard drive space has been reached, the oldest recordings will be overwritten automatically. In **Linear mode**, recording will continue until all the drive space has been used. Then recording will stop.

Recording data rate:

Select the desired recording rate here. The image quality increases automatically as the data rate increases. However, a higher data rate reduces the recording duration on the partition.

The maximum remaining recording time is recalculated after the data rate has been set and is displayed further down the page (**Remaining for recording**).

Recording resolution:

Here you can change the image resolution for the recording as required.

Alarm input sources:

Here you can select the alarm sensors that should trigger an alarm. Select the checkboxes of the alarm sources so the corresponding alarm sensors will be monitored for alarm recording.

 **Note**

A motion or video alarm from one camera can be used to trigger alarm recording by another camera. The motion alarm must be configured on the **Motion Detector** page (see page 98). Alarm settings are activated on the **Alarm input settings** page (see page 42). The video alarm is activated on the **Camera settings** page (see page 36).

Partition total size:

The displayed value shows the total space in MB occupied by the partition on the hard drive.

Remaining for recording:

Here the maximum time remaining for recording is displayed. It is automatically updated after the parameters are changed.

Deleting partitions

Partitions can be deleted at any time.



Warning!

Deleting a partition causes the entire hard drive to be reorganized and all sequences stored on it to be lost. Therefore, before deleting partitions, check the recordings and back up the important sequences to your computer's hard drive.

- Click **Format** to delete the partition currently shown.

Activating partitions

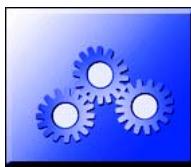
After configuring a partition, it can be activated by clicking the **Start** button and thereby starting recording activities.

After the partition is activated the entire field for it will be shown as gray. The icon at the bottom of the page indicates the recording status on the partition. When a recording is being made, the icon is animated.

Recording activities can be stopped at any time, and one, several or all partitions can be deactivated.

- Click **Start** to activate the currently selected partition and begin recording activities for it.
- Click **Start all** to activate all the configured partitions and begin the associated recording activities.
- Click **Stop** to deactivate the currently selected partition and terminate its recording activities.
- Click **Stop all** to deactivate all the configured partitions and halt the associated recording activities.

System settings



System settings

Unit identification

Unit name:

Unit ID:

Language selection

Website language:

Password settings

Password level:

Password:

Confirm password: No 'user' Password set!

Time settings

Time format:

System date: . .

System time: : :

Time Server settings

Time zone:

Time server IP address:

[Help on this page?](#)

Various basic configuration data for the VideoJet 8000 can be set or selected here.

Unit name:

The unit can be assigned a name to assist in identifying it. This name will be overlaid on the video image, depending on the configuration. Furthermore, device names simplify the administration of multiple units in larger systems using programs such as VIDOS from VCS.

 **Note**

The unit name is used to identify a unit remotely, such as in the case of an alarm call. Enter a designation that makes it as easy as possible to identify the location unambiguously.

Unit ID:

Each VideoJet 8000 should be assigned a unique identifier that can be entered here as an additional means of identification.

Web site language:

Here you select the language of the user interface.

user name:

A VideoJet 8000 unit is generally protected by a password to prevent unauthorized access. The VideoJet 8000 uses three levels of authorization: **live**, **service** and **user**.

The **service** authorization level allows you to use all the functions of the VideoJet 8000 and change all the settings after entering the proper password.

The **user** authorization level allows you to operate the unit and control cameras but not to change the configuration.

Live authorization allows you to view live images but neither change the configuration nor control cameras or other peripheral devices.

Password:

You can define and change passwords for each authorization level if the unit is not password protected or if logged on with **service** authorization. Only one password at a time can be changed. To change the password of another authorization level, this configuration page must be reloaded.

Confirm password:

Re-enter the new password to avoid typing errors.

Time format

The desired date format for the display can be selected:

- Europe: DD.MM.YYYY
- USA: MM/DD/YYYY
- Japan: YYYY/MM/DD

System date and time:

If there are a number of units operating in your system or network, it is important to synchronize their internal clocks. Only if all units operate with the same time it is possible, for example, to make correct identification and evaluation of recordings occurring at the same time.

- Enter the current date. It is not necessary to enter the day of week; this is supplied automatically by the internal clock
- Enter the current time or click the **Synchron.** button to copy the system time from your computer to the VideoJet 8000.

Time zone and Time server IP address:

The VideoJet 8000 can receive a time signal from a TIME server (NTP server) and use it to set the internal clock. The unit calls up the time signal automatically every two hours.

- Select the time zone where the system is located from the list.
- Enter the IP address of the desired NTP server.

Ethernet settings



Ethernet settings

Network settings

Internet IP address:	<input type="text" value="192.168.0.80"/>
Subnet mask:	<input type="text" value="0.0.0.0"/>
Gateway IP address:	<input type="text" value="0.0.0.0"/>

Multicast settings

Multicast address encoder 1:	<input type="text" value="0.0.0.0"/>	Port:	<input type="text" value="50000"/>
Multicast address encoder 2:	<input type="text" value="0.0.0.0"/>	Port:	<input type="text" value="50000"/>
Multicast address encoder 3:	<input type="text" value="0.0.0.0"/>	Port:	<input type="text" value="50000"/>
Multicast address encoder 4:	<input type="text" value="0.0.0.0"/>	Port:	<input type="text" value="50000"/>
Multicast address encoder 5:	<input type="text" value="0.0.0.0"/>	Port:	<input type="text" value="50000"/>
Multicast address encoder 6:	<input type="text" value="0.0.0.0"/>	Port:	<input type="text" value="50000"/>
Multicast address encoder 7:	<input type="text" value="0.0.0.0"/>	Port:	<input type="text" value="50000"/>
Multicast address encoder 8:	<input type="text" value="0.0.0.0"/>	Port:	<input type="text" value="50000"/>

Multicast paket TTL:

[Help on this page?](#)

The settings in this dialog are used to integrate the unit into an existing network. The group IP address (multicast address) and the channel (port) must be set separately for each encoder.

**Warning!**

Changes to the IP address, subnet mask or gateway address are sent to the unit when the **Set** button is clicked. However, they only take effect after the unit is restarted!

- Click **Set** after entering a new IP address.
- To do this, enter the old IP address in the address field of the Web browser and append /reset to it (e.g. 192.168.0.80/reset). The VideoJet 8000 will be restarted after which it can only be accessed at the new IP address.

Internet IP address:

Enter the desired IP address for the VideoJet 8000 in this field. The IP address must be valid for the network.

Subnet mask:

Enter the subnet mask here if the unit is to communicate via a subnet.

Gateway IP address:

Enter the corresponding IP address here if the unit is to establish a connection independently outside the local network. Otherwise, this field can remain empty (0.0.0.0).

**Note**

If a switch is used additional settings must be configured in expert mode (see page 103).

Multicast configuration

In addition to a 1:1 connection between an encoder and a single receiver (unicast), the VideoJet 8000 can enable multiple receivers to receive the video signal from an encoder simultaneously. This is achieved either by duplicating the data stream in the unit with subsequent distribution to multiple receivers (multi-unicast) or by distribution of a single data stream over the network to a number of receivers in a defined group (multicast). A dedicated multicast address and port can be specified for each of the eight encoders.

**Note**

The prerequisite for multicast operation is a multicast-capable network using the UDP and IGMP protocols. Other group membership protocols are not supported. The TCP protocol does not support multicast connections.

The MPEG-2 data transfer protocol is designed for at most one multi-unicast connection to each encoder. The transparent data connection is maintained by the first unit. However after about 15 seconds of inactivity, the data connection is automatically terminated and another unit can exchange transparent data with the transmitter.

For multilink operation, the network need not be multicast-capable, because the VideoJet 8000 is also multi-unicast compatible. Duplication of the data on the unit requires considerable processor power and, under certain circumstances, leads to limitations in the picture quality.

When the multicast address is set to **0.0.0.0**, the VideoJet 8000 operates in multi-unicast mode (copies the data streams on the unit).

If a valid multicast group IP address is entered for each encoder, the unit operates in the multicast mode (duplication of the data stream on the network).

Multicast address encoder 1 ... Multicast address encoder 8:

A special IP address (class D address) must be configured for multicast operation in a multicast-enabled network.

The network must support group IP addresses and the Internet Group Management Protocol (IGMP). The address space is from 224.0.1.0 to 238.255.255.255.

The multicast address can be the same for multiple encoders. Then however it is necessary to use a different port in each case so that multiple data streams are not sent simultaneously over the same port and multicast address.

Port:

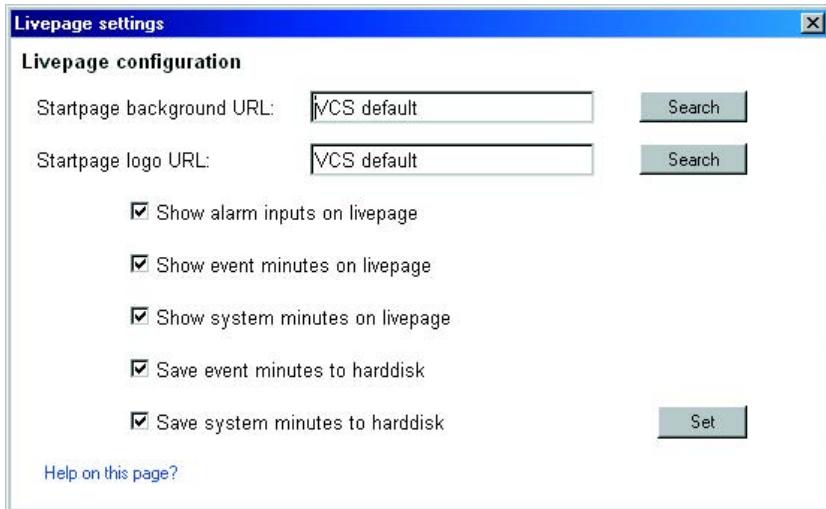
In the case of simultaneous data streams in MPEG-2 format the data streams must be assigned to different ports.

Enter the port address for the particular encoder here.

Multicast packet TTL:

A value can be entered to specify how long the multicast data packets are active on the network. If multicast is to be run over a router the value must be greater than 1.

Livepage settings



In this dialog, the appearance of the Livepage can be set up to suit your requirements. Options are provided here to display various information and operating elements in addition to the video image.

Moreover, individual background graphics can be used for the main window and the upper area of the window (banners).

Note

Either GIF or JPEG images can be used. The file paths must correspond to the access mode (local paths such as C:\Images\Logo.gif for local files and URLs such as http://www.vcs.com/images/logo.gif for files on the Internet).

Please note for access via Internet/intranet that there must be a connection in order to display the image. The image files are not stored on the VideoJet 8000.

- Mark the checkboxes for the information to be displayed on the Livepage. The selected elements are checkmarked.

- Check the display of the desired information on the Livepage.

Startpage background URL:

Enter the path to a suitable background graphic in this field. The image can be stored on a local computer, a local network or at an Internet address.

Click **Search** if necessary to find a suitable image on the local network.

Startpage logo URL:

Enter here the path for a suitable image for the upper part of the window (banner). The image can be stored on a local computer, a local network or at an Internet address.

- Click **Search** if necessary to find a suitable image on the local network.

Note

To restore the original graphics, just delete the entries in the fields **Startpage background URL** and **Startpage logo URL**.

Show alarm inputs on livepage

Alarm inputs are displayed next to the video image as icons along with their assigned names. If an alarm is active the corresponding icon changes color.

Show event minutes on livepage

The event log will be displayed with date and time in a field under the video image.

Show system minutes on livepage

The system log will be displayed with date and time in a field under the video image and provide information about connections, etc.

Save event minutes to hard disk

Select this option to save the event log in a text file on the local computer.

These logs can be viewed, edited and printed with any software that can work with text files (such as Microsoft Word or Excel).

Save system minutes to hard disk

Select this option to save the system log in a text file on the local computer.

These logs can be viewed, edited and printed with any software that can work with text files (such as Microsoft Word or Excel).

Note

If the saving of log files is enabled (for example "**Save event minutes on livepage**"), these will be stored by default as text files on the Windows Desktop. The path for saving the files can be changed in expert mode (see page 108).

Expert Mode

Expert Mode allows all parameters of the VideoJet 8000 to be configured. You can view the current settings by opening one of the configuration pages. The settings can be changed by entering new values or by selecting a predefined value from a list field.

Navigation

You can switch to expert mode after clicking the **Settings** link on the Livepage.

- Click the **Expert Mode** link. The initial page will be opened.
- Click one of the links on the left edge of the window. The corresponding page will be opened.



Applying changes

Each configuration page shows the current settings. The settings can be changed by entering new values or by selecting a predefined value from a list field.

- Click **Set** after each change to save it.



Warning!

Save each change with the associated **Set** button. When **Set** is clicked, only the changes in the relevant (blue-bordered) field are saved. Changes in any other fields are ignored.

Unit identification

Livepage	Wizard	Overview	Expert Mode	HDD-Replay
Unit identification				
Unit name:	<input type="text"/>			
Unit ID:	<input type="text"/>		<input type="button" value="Set"/>	

Unit name:

The unit can be assigned a name to assist in identifying it. This name will be overlaid on the video image, depending on the configuration. Furthermore, device names simplify the administration of multiple units in larger systems using programs such as VIDOS from VCS.

Note

The unit name is used to identify a unit remotely, in case of an alarm for example. Enter a designation that makes it as easy as possible to identify the location unambiguously.

Unit ID:

Each VideoJet 8000 should be assigned a unique identifier that can be entered here as an additional means of identification.

Password settings

Livepage	Wizard	Overview	Expert Mode	HDD-Replay
Password settings				
User name:	<input type="text" value="user"/> <input type="button" value="▼"/>			
Password:	<input type="text"/> No 'user' password set!			
Password confirm:	<input type="text"/> <input type="button" value="Set"/>			

User name:

A VideoJet 8000 unit is generally protected by a password to prevent unauthorized access. The VideoJet 8000 uses three levels of authorization: **live**, **service** and **user**.

The **service** authorization level allows you to use all the functions of the VideoJet 8000 and change all the settings after entering the proper password.

The **user** authorization level allows you to operate the unit and control cameras but not to change the configuration.

Live authorization allows you to view live images but you can neither change the configuration nor control cameras or other peripheral devices.

Password:

You can define and change passwords for each authorization level if the unit is not password protected or if logged on with **service** authorization. Only one password at a time can be changed. To change the password of another authorization level, this configuration page must be reloaded.

Confirm password:

Re-enter the new password to avoid typing errors.

Language selection

Livepage Wizard Overview Expert Mode HDD-Replay

Language selection

Website language: English Set

Web site language:

Here you select the language of the user interface.

Date and time

Livepage Wizard Overview Expert Mode HDD-Replay

Date and time

Date format: Europe

Unit date: Thursday, 08.07.2004

Unit time: 21 : 57 : 14 Synchr. PC Set

If a number of VideoJet units are part of a system, it is important that the internal clocks of these separate units be synchronized. Only if all units operate with the same time it is possible, for example, to make correct identification and evaluation of recordings occurring at the same time.

Date format:

The desired date format for the display can be selected:

- Europe: DD.MM.YYYY
- USA: MM/DD/YYYY
- Japan: YYYY/MM/DD

Unit date:

Enter the current date here. It is not necessary to enter the day of week; this is supplied automatically by the internal clock

Unit time:

Enter the current time here or click the **Synchr. PC** button to copy the system time from your computer to the VideoJet 8000.

Time server

Livepage	Wizard	Overview	Expert Mode	HDD-Replay
Timer server				
Time zone:	(UTC +1:00) Western & Central Europe			
Time settings:	<input type="checkbox"/> Use daylight saving time			
Time server IP address:	0.0.0.0		Set	

The VideoJet 8000 can receive a time signal from a TIME server (NTP server) and use it to set the internal clock. The device calls up the time signal automatically every two hours.

Time zone:

Here you can select the time zone in which your system is located.

Time settings:

Select this during daylight savings time if the time change is to be taken into account. Deselect it when standard time has resumed.

Time server IP address:

Enter the IP address of the desired NTP server if necessary.

Camera names

Livepage		Wizard	Overview	Expert Mode	HDD-Replay
Camera names					
Camera 1:	<input type="text" value="Camera 1"/>				
Camera 2:	<input type="text" value="Camera 2"/>				
Camera 3:	<input type="text" value="Camera 3"/>				
Camera 4:	<input type="text" value="Camera 4"/>				
Camera 5:	<input type="text" value="Camera 5"/>				
Camera 6:	<input type="text" value="Camera 6"/>				
Camera 7:	<input type="text" value="Camera 7"/>				
Camera 8:	<input type="text" value="Camera 8"/>				
<input type="button" value="Set"/>					

Camera 1 ... Camera 8:

Enter the desired name for each camera here. The camera name makes it easier to identify the remote camera location, in the event of an alarm for example. Enter an unambiguous, understandable name in the field.

Display stamping

Livepage		Wizard	Overview	Expert Mode	HDD-Replay
Display stamping					
Camera name stamping:	<input type="button" value="Off"/>				
Time stamping:	<input type="button" value="Off"/>				
Alarm mode stamping:	<input type="button" value="Off"/>				
Video watermarking:	<input type="button" value="Off"/>				
Displayed alarm message:	<input type="text"/>				
<input type="button" value="Set"/>					

Note

The settings on this page apply to all camera inputs.

Camera name stamping:

This field sets the position of the camera name overlay. It can be displayed on **Top** or on **Bottom** of the image or you can define a position yourself via the

Hyperterminal and activate it choosing the option **Custom**. Or it can be set to **Off** if no overlay of this information is to be shown.

Time stamping:

This field sets the position of the time and date overlay. It can be displayed on **Top** or on **Bottom** of the image or you can define a position yourself via the Hyperterminal and activate it choosing the option **Custom**. Or it can be set to **Off** if no overlay of this information is to be shown.

Alarm mode stamping:

Choose **On** if a text message should be overlaid in the event of an alarm.

Video watermarking:

Choose **On** if the video images transmitted are to be "watermarked". After activation, all images will be marked with a green **W**. A red **W** indicates that the sequence (live or saved) has been manipulated.

Displayed alarm message:

Enter the text to be shown in the event of an alarm. It can contain up to 31 characters.

MPEG-2 encoder configuration

Livepage Wizard Overview Expert Mode HDD-Replay

MPEG-2 Encoder profile selection

Active profile for encoder 1:	2MBPS low delay
Active profile for encoder 2:	2MBPS low delay
Active profile for encoder 3:	2MBPS low delay
Active profile for encoder 4:	2MBPS low delay
Active profile for encoder 5:	2MBPS low delay
Active profile for encoder 6:	2MBPS low delay
Active profile for encoder 7:	2MBPS low delay
Active profile for encoder 8:	2MBPS low delay

Set

MPEG-2 profiles configuration

Profile 1 Profile 2 Profile 3 Profile 4 Profile 5 Profile 6 Profile 7 Profile 8

Profile name:	2MBPS low delay	
Datarate:	2000	(kBit/s)
GOP structure:	IP	
GOP length:	12	
Video streaming type:	VES	
Video resolution:	D1	
Reset parameter for the preset:	Default	Set

The data transmission parameters can be configured to fit the local operating environment (network architecture, bandwidth, data structures, etc.). The VideoJet 8000 has eight preconfigured profiles, which reflect different priorities and environments.

Note

The settings for the encoders must be configured separately for each camera input. The numbering of the encoders corresponds to the labeling of the inputs on the back of the unit.

MPEG-2 Encoder profile selection

Profiles can be selected here for each of the eight encoders.

Preconfigured profiles are provided, which reflect different priorities and environments.

■ **2MBPS low delay**

2 MBit/s transmission rate with a low delay for image refresh

■ **3.5MBPS low delay**

3.5 MBit/s transmission rate with a low delay for image refresh

■ **5MBPS low delay**

5 MBit/s transmission rate with a low delay for image refresh

■ **2MBPS high quality**

2 MBit/s transmission rate with high image quality

■ **3.5MBPS high quality**

3.5 MBit/s transmission rate with high image quality

■ **5MBPS high quality**

5 MBit/s transmission rate with high image quality

■ **3MBPS low delay**

3 MBit/s transmission rate with a low delay for image refresh

■ **4.5MBPS low delay**

4.5 MBit/s transmission rate with a low delay for image refresh

- Select the desired setting from the list.

MPEG-2 profiles configuration

Individual settings in a profile can be changed, and the modified profile can be saved under a new name.



Warning!

The profiles are rather complex. They include a number of parameters that interact with one another. Therefore it is generally best to use the default profiles. The profiles should only be changed after you are familiar with all the configuration options.

Profile name:

You can rename the profile. Afterward, the name will be shown in the list of profiles that can be selected for each encoder.

Data rate:

The data rate for the speed of transmission over the network is shown for each parameter value. You can change the data rate and decide whether you prefer a constant rate or consistent image quality.

Selecting **constant** means that the data will always be transmitted at the set rate, but the image quality may vary. Selecting **variable** means that the image quality will be consistent, but the data rate can vary from the set value.

GOP structure:

In MPEG-2 encoding, image sequences are divided into groups (GOP – "Group of Pictures"). Each group can contain three different frame types. I-frames contain the complete information for an image and therefore require the most coding data. P-frames code only the difference between the current image and the previous one. These require considerably less data. Lastly, B-frames encode only the difference between the current image and the previous and next images. They require the least data. However, B-frames have a large delay, because image information from subsequent images is required for encoding. Each GOP always begins with an I-frame.

Note

B-Frames have a large delay and are not suitable for some applications, such as manually controlling a dome camera. Keep this in mind when choosing a GOP structure and length.

Select the structure for the GOP. You can choose between:

- **I**
I-frames only
- **IP**
an I-frame followed by several P-frames
- **IPB**
an I-Frame followed by several substructure sequences, each consisting of a P-frame and a B-frame
- **IPBB**
an I-Frame followed by several substructure sequences, each consisting of a P-frame and two B-frames

GOP length:

Enter the image interval between I-frames. The value will depend on the GOP structure selected. It must always be a multiple of the P- and B- frames in the GOP structure.

The GOP structure "IPB" a length of 4 means that an I-frame is followed by a total of four other frames, which are alternately P- and B-frames. The resultant image structure is: IPBPBIPBPBIPBPB ...

The GOP structure "IP" can have any GOP length. The "IPB" structure must have a GOP length that is a multiple of two. The "IPBB" structure has length that are multiples of three. The GOP structure I requires no GOP length.

Video streaming type:

The option **VES** (Video Elementary Stream) is preset for the video stream. It cannot be changed.

Video resolution:

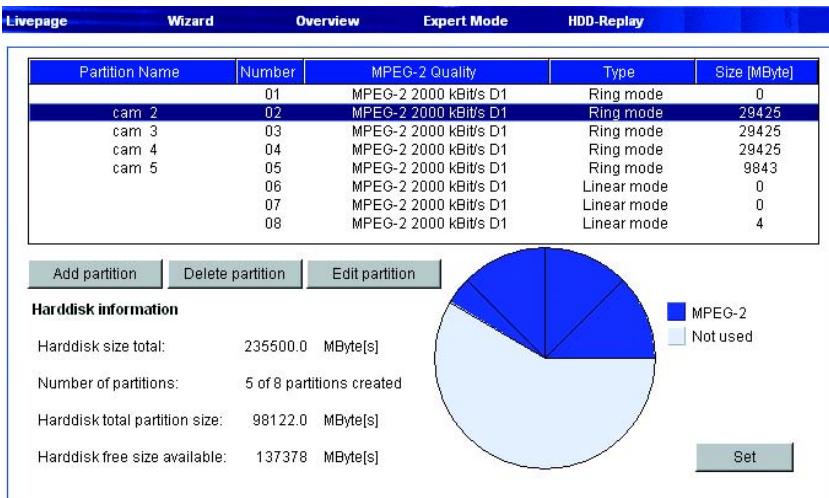
Select the desired resolution for the MPEG-2 video image. The following resolutions are available:

- **CIF** 352 × 288 pixels
- **D1** 704 × 576 pixels

Reset parameter for the preset:

Click **Default** to revert the profile to its factory presets.

Partitioning data



The VideoJet 8000 hard drive can have up to eight partitions configured in the same way as is typical for computer hard drives. Parameters can be defined individually for each partition, such as size, quality, type of video recording and the compression standard used. Changes in these parameters result in a complete reorganization, causing saved data on the partition to be deleted.

The VideoJet 8000 requires a dedicated partition for the recordings of each camera connected. Each partition is linked to its own encoder or camera input: camera input **Video 1** with partition **01**, camera input **Video 2** with partition **02** etc. The assignments cannot be changed. Therefore all partitions are always shown in the list, regardless of whether a configuration is present or has been deleted. It is necessary to configure all eight partitions to record with eight cameras. The default configuration already has eight partitions configured.

All the partitions are listed in the table on the **Partition** page by name, sequential number, recording format/video quality, recording type and partition size.

This page also provides an overview of the hard drive information, such as total size, number of partitions, space used on the partitions and the number of unallocated megabytes of space. A pie chart shows how much space is reserved for recordings or is unused.

General procedure



Warning!

Changes to the size or number of partitions will result in reorganization of the entire hard drive and the loss of all saved data. Therefore, before making changes to the parameters mentioned, check the recordings and back up the important sequences to your computer's hard drive.



Note

If there are already eight partitions configured, the Installation Wizard can only be started after at least one partition has been deleted.

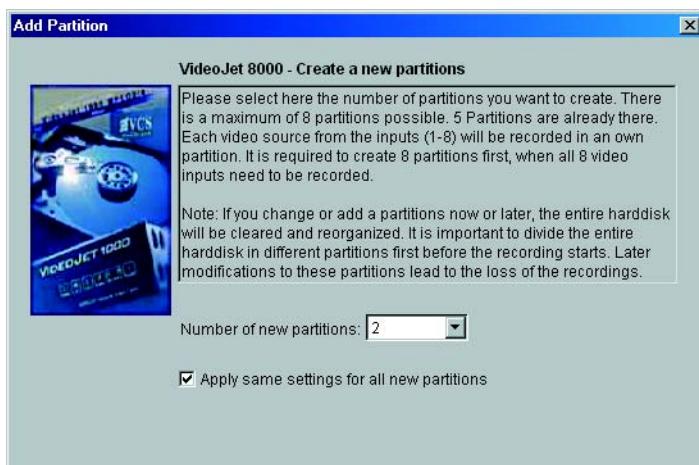
When the Installation Wizard has started, a new information window will appear in which settings can be configured.

The entire wizard sequence must be completed once for each hard drive partition created. For this reason, the number of partitions to be created can be selected immediately after starting the Installation Wizard. The wizard will then restart automatically until all the partitions specified are configured.



Note

More than one partition with the same configuration can be created in a single process. Mark the checkbox **Apply same settings for all new partitions** on the initial page of the wizard.



- Click **Add partition** to start the partition wizard.
- Always read the information in the upper part of the window first.

- Click in the text fields to enter values or use the other controls available, such as buttons, check boxes or list fields.
- Click **Next >>** to continue to the next step.
- Click **<< Back** to look at the previous step again.

Applying the settings



Note
Continue with the Installation Wizard until the last page. Only there is it possible to save the settings by clicking **Finish**.

Settings made with the Installation Wizard only take effect after the **Finish** button on the last page is clicked.

Clicking **Cancel** causes the original settings to remain unchanged.

- After closing the Installation Wizard, click the **Set** button in the main window to send the changes to the unit and save them there.

Changing partition data

The configuration of the partitions can be changed at any time.



Warning!

Changes to a partition that affect the name, video quality, recording format or type or the number of alarms and the pre- and post-alarm recording times cause the partition to be reorganized and all saved data on that partition to be lost. You should therefore back up all important sequences to the hard drive of the computer before making such changes. If the total recording time or the size of the partition is changed, the entire configuration of the hard drive is lost.

The desired changes can be made in the **Partition Settings** window.

- Click to select the partition in the list that you want to change.
- Click **Edit partition**. The **Partition Settings** window will appear, showing the information for the selected partition.
- Make the desired changes.
- Click **Set** to save the changes.

- After closing the window, click the **Set** button in the main window to send the changes to the unit and save them there.

Deleting partitions

A partition can be deleted at any time.



Warning!

Deleting a partition causes the entire hard drive to be reorganized and all sequences stored on it to be lost. Therefore, before deleting partitions, check the recordings and back up the important sequences to your computer's hard drive.

- Click a partition in the list to select it.
- Click **Delete partition** to delete the selected partition. The partition will not be removed from the list. Rather, it remains without a name or size specification in order to give you a better overview.
- Click **Set** to send the changes to the unit and save them.

Recording scheduler

The screenshot shows the 'Time recording' tab selected in the navigation bar. The top part displays a weekly grid from Monday to Sunday, with time markers at 0:00, 3:00, 6:00, 9:00, 12:00, 15:00, 18:00, 21:00, and 24:00. Each day has a blue horizontal bar representing the recording period. Below the grid, there are several configuration fields:

- Continuous recording frame rate: 2 Frames/s
- Post alarm recording frame rate: All frames
- Post alarm time: 0 sec
- Used filetracks from partition: 13 / 128
- Total used size from partition: 3 %
- Free on this partition: 28543 MByte[s]

At the bottom right, there is a 'Recording status:' indicator icon and a 'Set' button.

Here you set the parameters for recording on the local hard drive. Recording may be done continuously or only in the event of an alarm.

Partition:

Select the partition on which you want to record. Recording of the individual camera inputs is always done on dedicated partitions.

Time recording

Here you can specify the times during which continuous recording on the hard drive takes place.

For each weekday, there are separate selection fields for each partition and thus for each camera input. You can select 16 individual recording periods for each weekday.

 **Note**

If a period has already been selected for the alarm recording, you can no longer select it for timed recording (see **Alarm recording**, page 90).

- Left-click on the weekday on which the recording should start and hold down the mouse button.
- Now drag the selected field to the desired ending time for the recording and release the mouse.
- Right-click a selected time segment to delete it.
- Click **Select all** to select all time segments.
- Click **Delete all** to delete all selected periods.

Continuous recording frame rate:

You can select the frame rate for default recordings. Default recordings are those that are not triggered by an alarm. The option **All frames** is used to record at 25 fps (PAL) or 30 fps (NTSC) from a camera to its assigned partition. Other settings result in a lower frame rate and thus require less partition space. This means that the VideoJet 8000 can record for a longer period of time.

Post-alarm recording frame rate:

If an alarm occurs during a default recording, the frame rate can be changed automatically to the post-alarm rate. The option **All frames** is used to record at 25 fps (PAL) or 30 fps (NTSC) from a camera to its assigned partition. Other settings result in a lower frame rate.

Post-alarm time:

Select the period after an alarm during which recording should continue at a different frame rate.

Used file tracks from partition:

Up to 128 recording tracks are created automatically on a partition. Each new recording takes place on a separate track.

Selecting the option **Linear mode** means that no more new recordings are made after the 128 tracks have been used. Old recordings must be deleted before the tracks can be re-used. Selecting **Ring mode** means that the 129th recording will be written on the first track, so that the oldest recording is always overwritten by the newest.

Total used size from partition:

The display indicates the space currently used on the partition.

Free on this partition:

The display indicates the current amount of free space on the partition.

Recording status:

The icon indicates the recording status on this partition. When a recording is being made, the icon is animated.

Alarm recording

Livepage Wizard Overview Expert Mode HDD-Replay

Partition: cam 1 Stop Start Stop all Start all

Time recording **Alarm recording** Properties

0:00 3:00 6:00 9:00 12:00 15:00 18:00 21:00 24:00

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

00:00:00 Select all Clear

Number of alarms: 0

Pre alarm recording frame rate: 2 Frames/s Post alarm recording frame rate: All frames

Pre alarm time: 0 sec Post alarm time: 0 sec

Used alarmtracks from partition: 13 / 128

Total used size from partition: 3 %

Free on this partition: 28543 MByte[s]

Recording status: Set

Here you can define the times when recordings are to be made by the selected camera on the hard drive in the event of an alarm. When recorded sequences are played back, the time of the alarm activation is specially marked so that it can be easily identified.

Just like for timed recording, you can select 16 separate time periods on each weekday for alarm recording. An alarm recording takes place only during the selected periods.

Note

If a period has already been selected for the timed recording, you can no longer select it for alarm recording (see **Timed recording**, page 87).



Warning!

For alarm recordings, alarm tracks must be set up on the desired partition (see **Number of alarm tracks**, page 91).

The VideoJet 8000 uses a special recording mode for alarm recording to optimize the use of storage capacity. As soon as a time slot begins for the alarm recording, continuous recording starts on a segment the size of a complete alarm sequence (pre- and post-alarm). This segment on the partition works like a ring buffer and is overwritten again and again until an alarm is actually triggered. After that, recording on this segment will go on for the time predefined for post-alarm recording, and then a new segment will be used in the same way. For this reason the recorded alarm file is always saved in its full length to the partition and the recording space required for each alarm recording can be calculated easily.

 **Note**

When the time slots for default and alarm recording overlap, the default recording has priority.

Number of alarms:

Here you set the number of alarm tracks on the partition. One alarm event can be recorded on each alarm track. The specified number of alarms can be recorded and archived accordingly. A partition can contain a maximum of 128 alarm recordings. If the option **Ring mode** is set for the partition, the predefined number of the latest alarm recordings will be stored. If the option **Linear mode** is set, recording will stop as soon as all the alarm tracks have been written.

Pre-alarm recording frame rate:

You can select the frame rate for pre-alarm recording. The option **All frames** is used to record at 25 fps (PAL) or 30 fps (NTSC) from a camera to its assigned partition. Other settings result in a lower frame rate.

Post-alarm recording frame rate:

You can select the frame rate for alarm recording. The option **All frames** is used to record at 25 fps (PAL) or 30 fps (NTSC) from a camera to its assigned partition. Other settings result in a lower frame rate.

Pre-alarm time:

Select the period to be covered by the pre-alarm recording.

Post-alarm time:

Select the duration of the alarm recording.

Used alarm tracks from partition:

The display indicates how many of the alarm tracks are already used.

Total used size from partition:

The display indicates the space currently used on the partition.

Free on this partition:

The display indicates the current amount of free space on the partition.

Recording status:

The icon indicates the recording status on this partition. When a recording is being made, the icon is animated.

Settings

Partition: cam 1

Partition name: cam 2

Note: This partition will be re-organized if any properties on this partition are changed.
Previous recordings on this partition will be lost.
Please backup the video data first.

Encoder number: 2

Type of recording: Ring mode

Video recording: MPEG-2

Recording datarate: 2000 kBits/s Recording resolution: D1

Alarm input sources:

- Alarm input 1
- Alarm input 2
- Alarm input 3
- Alarm input 4
- Alarm input 5
- Alarm input 6
- Alarm input 7
- Alarm input 8
- Alarm input 9
- Alarm input 10
- Motion alarm 1
- Motion alarm 2
- Motion alarm 3
- Motion alarm 4
- Motion alarm 5
- Motion alarm 6
- Motion alarm 7
- Motion alarm 8
- Video loss 1
- Video loss 2
- Video loss 3
- Video loss 4
- Video loss 5
- Video loss 6
- Video loss 7
- Video loss 8

Partition total size: 29425 MByte[s]

Remaining for recording: 1 Day[s] 18 Hour[s] 55 Minute[s]

Format Set

You can view the current parameters for each selected partition and change them as required in the recording scheduler. At the same time, you can activate the various alarms which must be taken into account during the recording. You can also set the data rate for the recording here.



Warning!

Changes to a partition that affect the name, video quality, recording format or type or the number of alarms and the pre- and post-alarm recording times cause the partition to be reorganized and all saved data on that partition to be lost. You should therefore back up all important sequences to the hard drive of the computer before making such changes.

Partition name:

Here you can enter a new name for the partition if needed.

Encoder number:

This shows information about the number of the associated encoder. The number corresponds to the respective camera input on the back of the unit.

Type of recording:

You can change the recording mode as required. In **Ring mode**, recording will continue indefinitely. When the maximum hard drive space has been reached, the oldest recordings will be overwritten automatically. In **Linear mode**, recording will continue until all the drive space has been used. Then recording will be stopped until some old recordings are deleted to provide free space.

Recording data rate:

Select the desired recording rate here. The image quality increases automatically as the data rate increases. However, a higher data rate reduces the recording duration on the partition.

The maximum remaining recording time is recalculated after the data rate has been set and is displayed further down the page (**Remaining for recording**).

Recording resolution:

Here you can change the image resolution for the recording as required.

Alarm input sources:

Here you can select the alarm sensors that should trigger an alarm. Select the checkboxes of the alarm sources so the corresponding alarm sensors will be monitored for alarm recording.

 **Note**

A motion or video alarm from one camera can be used to trigger alarm recording by another camera. The motion alarm must be configured on the **Motion Detector** page (see page 98). Alarm inputs and the video alarms are activated on the **Alarm sources** page (see page 96).

Partition total size:

The displayed value shows the total space in MB occupied by the partition on the hard drive.

Remaining for recording:

Here the maximum time remaining for recording is displayed. It is automatically updated after the parameters are changed.

Deleting partitions

Partitions can be deleted at any time.



Warning!

Deleting a partition causes the entire hard drive to be reorganized and all sequences stored on it to be lost. Therefore, before deleting partitions, check the recordings and back up the important sequences to your computer's hard drive.

- Click **Format** to delete the partition currently shown.

Activating partitions

After configuring a partition, it can be activated by clicking the **Start** button and thereby starting recording activities.

After the partition is activated the entire field for it will be shown as gray. The icon at the bottom of the page indicates the recording status on the partition. When a recording is being made, the icon is animated.

Recording activities can be stopped at any time, and one, several or all partitions can be deactivated.

- Click **Start** to activate the currently selected partition and begin recording activities for it.
- Click **Start all** to activate all the configured partitions and begin the associated recording activities.
- Click **Stop** to deactivate the currently selected partition and terminate its recording activities.
- Click **Stop all** to deactivate all the configured partitions and halt the associated recording activities.

Alarm sources

Alarm sources				
	Livepage	Wizard	Overview	Expert Mode
Alarm input 1:	<input type="button" value="Off"/>	<input type="button" value="Active low"/>	Name: <input type="text" value="Input 1"/>	
Alarm input 2:	<input type="button" value="Off"/>	<input type="button" value="Active high"/>	Name: <input type="text" value="Input 2"/>	
Alarm input 3:	<input type="button" value="Off"/>	<input type="button" value="Active high"/>	Name: <input type="text" value="Input 3"/>	
Alarm input 4:	<input type="button" value="Off"/>	<input type="button" value="Active high"/>	Name: <input type="text" value="Input 4"/>	
Alarm input 5:	<input type="button" value="Off"/>	<input type="button" value="Active high"/>	Name: <input type="text" value="Input 5"/>	
Alarm input 6:	<input type="button" value="Off"/>	<input type="button" value="Active high"/>	Name: <input type="text" value="Input 6"/>	
Alarm input 7:	<input type="button" value="Off"/>	<input type="button" value="Active high"/>	Name: <input type="text" value="Input 7"/>	
Alarm input 8:	<input type="button" value="Off"/>	<input type="button" value="Active high"/>	Name: <input type="text" value="Input 8"/>	
Alarm input 9:	<input type="button" value="Off"/>	<input type="button" value="Active low"/>	Name: <input type="text" value="Input 9"/>	
Alarm input 10:	<input type="button" value="Off"/>	<input type="button" value="Active low"/>	Name: <input type="text" value="Input 10"/>	
Video loss alarm 1-4:	<input type="button" value="Off"/>	<input type="button" value="Off"/>	<input type="button" value="Off"/>	<input type="button" value="Off"/>
Video loss alarm 5-8:	<input type="button" value="Off"/>	<input type="button" value="Off"/>	<input type="button" value="Off"/>	<input type="button" value="Off"/>
1. SNMP host address:	<input type="text" value="0.0.0.0"/>			<input type="button" value="Set"/>
2. SNMP host address:	<input type="text" value="0.0.0.0"/>			<input type="button" value="Set"/>

You can configure the possible alarm triggers for the VideoJet 8000 (such as alarm inputs and video signal monitoring of the camera inputs).

Alarm input 1 ... Alarm Input 10:

Select the option **On** in order to activate the alarm via the corresponding external alarm sensor. Otherwise, select **Off**.

You can choose whether the alarm is triggered by an **Active high** or **Active low** voltage level.

Name:

You can enter a name for each alarm input, which is then displayed next to the icon for the alarm input on the video live page during the respective configuration (see page 106).

Video loss alarm 1-4 ... Video loss alarm 5-8:

Select **On** if the VideoJet 8000 is to give an alarm when the video signal is interrupted.

1./2. SNMP host address:

Enter the IP addresses of up to two chosen receivers here if the alarm message is to be sent via SNMP-traps.

Alarm connections

Livepage	Wizard	Overview	Expert Mode	HDD-Replay
Alarm connections				
Connect on alarm:	<input type="button" value="Off"/>			
Number of video receiver address:	<input type="button" value="1"/>			
Alarm IP address:	<input type="text" value="192.68.0.3"/>			
Remote password:	<input type="password"/>			
Live video auto-connect:	<input type="button" value="On"/>			
Default camera:	<input type="button" value="4"/>			<input type="button" value="Set"/>

You can select a number of options for the response of the VideoJet 8000 to an alarm. In case of an alarm, the VideoJet 8000 can establish a connection to a predefined IP address (VCS hardware receiver or PC with receiver software) automatically. You can enter up to 10 IP addresses which will be selected in sequence by the unit until a connection is established. You can also choose which camera image should be automatically be displayed first on the receiver in the case of an alarm.

Connect on alarm:

Select **On** so that the VideoJet 8000 establishes a connection automatically to one of the pre-defined IP addresses in the event of an alarm.

Number of video receiver address:

Here you assign the numbering for the IP addresses to be contacted in the event of an alarm. The unit contacts the remote locations one after the other in the numbered sequence until a connection has been established.

Alarm IP address:

For each number, enter the corresponding IP address of the desired receiver.

Remote password:

If necessary, enter the password, if the remote location is protected by a password.

Live video auto-connect:

Select **On** if an active connection should be reestablished automatically to one of the previously specified IP addresses after each restart, e.g. after a connection breakdown or network dropout.

Default camera:

Here you can select the camera whose image will automatically be displayed first to the receiver after the alarm connection has been established. Depending on the system configuration, the receiver can then also select the other cameras.

Motion detector

The screenshot shows the 'Motion detector' configuration page. At the top, there is a navigation bar with tabs: Livepage (selected), Wizard, Overview, Expert Mode, and HDD-Reply. Below the tabs, there is a row of buttons labeled 'Enc. 1' through 'Enc. 8'. The main area contains several configuration options for each encoder:

- Motion detector:** A dropdown menu set to 'Off'.
- Local sensitivity:** A slider set to 57.
- Select sensor field:** A button labeled 'Select area'.
- Average n [frames]:** A slider set to 1.
- Default settings:** A button labeled 'Reset'.
- Alarm area size:** A slider set to 3.
- Motion alarm state:** A large text input field containing the message 'No sensor fields set now!'.

To the right of the configuration area, there is a live video feed showing a parking lot with several cars parked in front of a modern building.

The VideoJet 8000 has an integrated video sensor which can detect changes in the signal. Such changes are due primarily to movements in the camera's field of view.

The video sensor can be configured separately for each encoder, i.e. for each camera connected.

The sensitivity of the video sensor can be adjusted, so an alarm is generated only if specified values are exceeded.

In order for the sensor to function, the following conditions must be met:

- The motion detector must be enabled.
- At least one cell must be activated.
- The individual parameters must be set for the operating environment and the desired responses configured accordingly.
- The sensitivity must be set to a value greater than zero.



Warning!

Reflections of light (off glass surfaces, etc.), switching lights on or off or changes in the light level caused by cloud movement on a sunny day can trigger unintended responses from the video sensor and generate false alarms. Run a series of tests under day and night conditions to ensure that the sensor works as intended.

For indoor surveillance, ensure constant lighting of the areas during the day and at night.

Uniform surfaces without contrast can trigger false alarms even with constant lighting.

- Click one of the tabs to access the configuration of the corresponding encoders (or camera).
- Click **Reset** in the **Default settings** area to revert the settings to their default values.
- Click the remaining tabs to access and edit the configurations of additional encoders.

Motion detector

Select **On** to activate the video sensor.

Sensor fields

The areas of the image to be monitored by the video sensor can be selected. The video image is subdivided into 192 square sensor fields. Each of these fields can be activated or deactivated individually. If it is necessary to exclude particular regions of the camera's field of view from monitoring due to continuous movement (by a tree in the wind, etc.), the relevant fields can be deactivated.

- Click **Select area** to configure the sensor fields. A new window will open.
- If necessary, click **Clear all** first to clear the current selection (fields marked red).
- Click the fields to be activated. Activated fields are marked red.
- Click **Select all** to select the entire video frame for monitoring.
- Right-click any fields you wish to deactivate. "Inactive" fields are marked white.
- Click **Set** to save the configuration.
- Click the close button (X) in the window title bar to close the window without saving the changes.

Local sensitivity

The basic sensitivity of the video sensor can be adjusted to the environmental conditions of the camera.

The sensor reacts to variations in the brightness of the video image. The darker the observed area, the higher the value that must be selected.

- Adjust the sensitivity by dragging the scroll thumb to the desired setting.

Average [n frames]

You can define the number of frames for which a movement is monitored before generating an alarm. This helps prevent false alarms from events such as a bird flying across the surveillance area.

- Select the desired value by dragging the scroll thumb to the desired position.

Alarm area size:

You can specify the number of sensor fields that a moving object must cover to generate an alarm. This is to prevent objects that are too small from triggering an alarm.

The minimum setting is "1". This corresponds to one sensor field.

- Select the desired value by dragging the scroll thumb to the desired position.

Motion alarm status:

This field lists all the motion alarms and the date and time of their occurrence. The events for the currently selected camera input will be listed.

After adjusting the settings, the reaction of the VideoJet 8000 can be checked in the preview frame on the right side of the page. Sensor fields that are currently reacting to motion are marked red on the video image. Inactive sensor fields are marked green.

COM1 interface

The screenshot shows the 'Livepage' tab selected in the top navigation bar. Below it, the 'COM1 serial data port' section is visible, containing a dropdown menu set to 'Terminal' with a 'Set' button. The 'COM1 interface settings' section is expanded, showing various configuration options: Baud rate (19200), Data bits (8), Stop bits (1), Parity check (None), Interface mode (RS232), and Half-duplex mode (Off). Each setting has its own dropdown menu and a 'Set' button.

The **RS232/485** serial interface port can be configured to meet your requirements.

Serial port function:

Select a controllable device from the list. If you want to use the serial interface to transmit transparent data, select **Transparent**.

Note

After selecting a device, the remaining parameters in the window are set automatically and should not be changed.

Baud rate:

Select the value for the data communication rate in Bit/s.

Data bits:

The number of data bits per character cannot be changed.

Stop bits:

Select the number of stop bits per character.

Parity check:

Select the type of parity check.

Interface mode:

Select the desired protocol for the serial interface.

Half-duplex mode:

Choose the setting appropriate for your application.

Network settings

Livepage	Wizard	Overview	Expert Mode	HDD-Replay
Network settings				
Unit IP address:	<input type="text" value="192.168.0.80"/>			
Subnet mask:	<input type="text" value="0.0.0.0"/>			
Gateway IP address:	<input type="text" value="0.0.0.0"/> <small>Reboot after 'Set' necessary!</small>			
Ethernet link type:	<input type="button" value="Auto"/>			
DNS server IP address:	<input type="text" value="0.0.0.0"/>			
DNS refresh time:	<input type="text" value="0"/> <small>(Between 30 - 86400 sec.)</small> <input type="button" value="Set"/>			

The settings on this page are used to integrate the unit into an existing network.

**Warning!**

Changes to the IP address, subnet mask or gateway address are sent to the unit when the **Set** button is clicked. However, they only take effect after the unit is restarted!

- Click **Set** after entering a new IP address.
- To do this, enter the old IP address in the address field of the Web browser and append /reset to it (e.g. 192.168.0.80/reset). The VideoJet 8000 will be restarted after which it can only be accessed at the new IP address.

Unit IP address:

Enter the desired IP address for the VideoJet 8000 in this field. The IP address must be valid for the network.

Subnet mask:

Enter the subnet mask here if the unit is to communicate via a subnet.

Gateway IP address:

Enter the corresponding IP address here if the unit is to establish a connection independently outside the local network. Otherwise, this field can remain empty (0.0.0.0).

Ethernet link type:

If the VideoJet 8000 is connected to the network via a switch, both devices must be set for the same type of network connection. If necessary, ask your network administrator about the switch setting.

The value can be set to 10 MBit/s, 100 MBit/s or 1 GBit/s and full or half-duplex mode (**FD** or **HD**) or to **Auto** if the network connection is to be flexible for individual cases.

**Warning!**

Errors such as picture interference can occur if the setting of the VideoJet 8000 differs from the connected switch, such as when the switch is set to **Auto** and the VideoJet 8000 to **10 MBit/s HD**.

DNS server IP address:

When operating a unit over the Internet, an address pool with dynamic addresses is used for greater efficiency. This means that the unit is assigned an IP address each time a connection is made and this address varies. In this case, access is easier if the unit is listed on a DNS server. It will contact the server at regular intervals and register its unit name and IP address. To connect to the VideoJet 8000 via the Internet, it is enough to enter the unit name and the URL of the DNS server. The server returns the current Internet IP address for the connection.

The DNS server for VCS **videotec.info** is preset as the default. The associated IP address is 195.145.107.78. The VideoJet 8000 contacts this server automatically if the desired refresh interval is entered for the next parameter. If

the unit name is **MyVideoJet** for example, the URL **MyVideoJet.videotec.info** can be entered in the browser to make a connection.

DNS refresh time:

Enter the desired update interval in seconds.

Multicast configuration

Livepage	Wizard	Overview	Expert Mode	HDD-Replay
Multicast settings				
Multicast IP address encoder 1:	<input type="text" value="0.0.0.0"/>	Multicast port 1:	<input type="text" value="50000"/>	
Multicast IP address encoder 2:	<input type="text" value="0.0.0.0"/>	Multicast port 2:	<input type="text" value="50000"/>	
Multicast IP address encoder 3:	<input type="text" value="0.0.0.0"/>	Multicast port 3:	<input type="text" value="50000"/>	
Multicast IP address encoder 4:	<input type="text" value="0.0.0.0"/>	Multicast port 4:	<input type="text" value="50000"/>	
Multicast IP address encoder 5:	<input type="text" value="0.0.0.0"/>	Multicast port 5:	<input type="text" value="50000"/>	
Multicast IP address encoder 6:	<input type="text" value="0.0.0.0"/>	Multicast port 6:	<input type="text" value="50000"/>	
Multicast IP address encoder 7:	<input type="text" value="0.0.0.0"/>	Multicast port 7:	<input type="text" value="50000"/>	
Multicast IP address encoder 8:	<input type="text" value="0.0.0.0"/>	Multicast port 8:	<input type="text" value="50000"/>	
Multicast packet TTL:	<input type="text" value="16"/>		<input type="button" value="Set"/>	

In addition to a 1:1 connection between an encoder and a single receiver (unicast), the VideoJet 8000 can enable multiple receivers to receive the video signal from an encoder simultaneously. This is achieved either by duplicating the data stream in the unit with subsequent distribution to multiple receivers (multi-unicast) or by distribution of a single data stream over the network to a number of receivers in a defined group (multicast). A dedicated multicast address and port can be specified for each of the eight encoders.

Note

The prerequisite for multicast operation is a multicast-capable network using the UDP and IGMP protocols. Other group membership protocols are not supported. The TCP protocol does not support multicast connections.

The MPEG-2 data transfer protocol is designed for at most one multi-unicast connection to each encoder. The transparent data connection is maintained by the first unit. However after about 15 seconds of inactivity, the data connection is

automatically terminated and another unit can exchange transparent data with the transmitter.

For multilink operation, the network need not be multicast-capable, because the VideoJet 8000 is also multi-unicast compatible. Duplication of the data on the unit requires considerable processor power and, under certain circumstances, leads to limitations in the picture quality.

When the multicast address is set to **0.0.0.0**, the VideoJet 8000 operates in multi-unicast mode (copies the data streams on the unit).

If a valid multicast group IP address is entered for each encoder, the unit operates in the multicast mode (duplication of the data stream on the network).

Multicast address encoder 1 ... Multicast address encoder 8:

A special IP address (class D address) must be configured for multicast operation in a multicast-enabled network.

The network must support group IP addresses and the Internet Group Management Protocol (IGMP). The address space is from 224.0.1.0 to 238.255.255.255.

The multicast address can be the same for multiple encoders. Then however it is necessary to use a different port in each case so that multiple data streams are not sent simultaneously over the same port and multicast address.

Multicast port 1 ... Multicast port 8:

In the case of simultaneous data streams in MPEG-2 format the data streams must be assigned to different ports.

Enter the port address for the particular encoder here.

Multicast packet TTL:

A value can be entered to specify how long the multicast data packets are active on the network. If multicast is to be run over a router the value must be greater than 1.

Version information

Livepage	Wizard	Overview	Expert Mode	HDD-Replay
Version information				
Hardware version:	20003A42			
Software version:	55000101			

The hardware and software version numbers are for information only and cannot be altered. Keep a record of these numbers in case technical assistance is required.

Hardware version:

The hardware version number of the VideoJet 8000 is displayed.

Software version:

The software version number of the VideoJet 8000 is displayed.

Livepage configuration

Livepage	Wizard	Overview	Expert Mode	HDD-Replay
Livepage configuration				
Startpage background URL:	VCS default		Search	
Startpage logo URL:	VCS default		Search	
Show alarm inputs on livepage:	<input checked="" type="checkbox"/>			
Show event minutes on livepage:	<input checked="" type="checkbox"/>			
Show system minutes on livepage:	<input checked="" type="checkbox"/>			
Save event minutes to harddisk:	<input checked="" type="checkbox"/>			
Save system minutes to harddisk:	<input checked="" type="checkbox"/>			
Path for event minutes:	C:\Event.txt		Search	
Path for system minutes:	C:\General.txt		Search	
Path for JPEG and MPEG files:	C:\		Search	Set

In this dialog, the appearance of the Livepage can be set up to suit your requirements. Options are provided here to display various information and operating elements in addition to the video image.

Moreover, individual background graphics can be used for the main window and the upper area of the window (banners).

 **Note**

Either GIF or JPEG images can be used. The file paths must correspond to the access mode (local paths such as C:\Images\Logo.gif for local files and URLs such as http://www.vcs.com/images/logo.gif for files on the Internet).

Please note for access via Internet/intranet that there must be a connection in order to display the image. The image files are not stored on the VideoJet 8000.

- Mark the checkboxes for the information to be displayed on the Livepage. The selected elements are checkmarked.
- Check the display of the desired information on the Livepage.

Startpage background URL:

Enter the path to a suitable background graphic in this field. The image can be stored on a local computer, a local network or at an Internet address.

- Click **Search** if necessary to find a suitable image on the local network.

Startpage logo URL:

Enter here the path for a suitable image for the upper part of the window (banner). The image can be stored on a local computer, a local network or at an Internet address.

- Click **Search** if necessary to find a suitable image on the local network.

 **Note**

To restore the original graphics, just delete the entries in the fields

Startpage background URL and **Startpage logo URL**.

Show alarm inputs on livepage:

Alarm inputs are displayed next to the video image as icons along with their assigned names. If an alarm is active the corresponding icon changes color.

Show event minutes on livepage:

The event log will be displayed with date and time in a field under the video image.

Show system minutes on livepage:

The system log will be displayed with date and time in a field under the video image and provide information about connections, etc.

Save event minutes to hard disk:

Select this option to save the event log in a text file on the local computer.

These logs can be viewed, edited and printed with any software that can work with text files (such as Microsoft Word or Excel).

Save system minutes to hard disk:

Select this option to save the system log to a text file on the local computer.

These logs can be viewed, edited and printed with any software that can work with text files (such as Microsoft Word or Excel).

Save event minutes to hard disk:

Enter full path for the event message log file.

- If necessary, click **Search** to find a suitable folder.

Save system minutes to hard disk:

Enter full path for the system messages log file.

- If necessary, click **Search** to find a suitable folder.

Path for JPEG and MPEG files:

Enter the full path for saving snapshots and video sequences to be saved from the Livepage or HDD playback.

- If necessary, click **Search** to find a suitable folder.

Software update

Livepage	Wizard	Overview	Expert Mode	HDD-Replay
Software update				
Software upload:	<input type="text"/>	Search	<input type="button" value="Upload"/>	
Upload progress:	<div style="width: 0%;">0%</div>			
Configuration download:	<input type="button" value="Download"/>			
Configuration upload:	<input type="text"/>	Search	<input type="button" value="Upload"/>	

Software update:

The VideoJet 8000 is designed in such a way that its functions and parameters can be updated with firmware. To accomplish this, the current firmware is loaded on the unit via the selected network. It will be installed automatically after the connection is closed.

Thus a VideoJet 8000 unit can be serviced and updated remotely without requiring a technician to make changes on-site.

The current firmware can be obtained from VCS Customer Service or downloaded from the Internet at our Web site (www.vcs.com).



Warning!

Before starting the firmware upload, be sure that you have selected the correct file! Uploading the wrong files can result in the unit no longer being addressable, requiring it to be replaced.

Do not interrupt the firmware installation for any reason! Interruption will damage the flash EPROMs. This can also result in the unit no longer being addressable, requiring it to be replaced.

- First, save the update file to the hard disk.
- Enter the full path for the update file in the field or click **Search** to locate and select the file.
- Click **Upload** to begin transmission to the unit. The progress of the download can be observed from the status messages and progress bar.

After about 90 seconds, the message **Firmware upload complete. Status: upload finished - please wait!** will appear. The new firmware will be decompressed and used to reprogram the flash EPROM. The time necessary is indicated by the message **Reconnection in ... seconds**.

After the upload is completed successfully, the unit will restart automatically.

If the **Failure** LED is blinking, the upload has failed and must be done again. To perform the upload, you must go to a special page.

- In the address field of the browser, append `/main.htm` to the IP address of the unit (e.g. `192.168.0.80/main.htm`) and hit return.
- Repeat the upload.

Configuration download:

The VideoJet 8000 configuration data can be saved on a computer and the saved data loaded on a unit from the computer.

- Click **Download**. A dialog will appear.
- Follow the instructions to save the current settings.

Configuration upload:

- Enter the full path of the file to upload or click **Search** to select the desired file.
- Make sure that the file to be loaded comes from a VideoJet 8000.
- Click **Upload** to begin transmitting the file to the unit.

This message will appear: **Configuration upload finished. Status: Configuration upload OK. (system must be rebooted)** will be displayed and the countdown for the reconnection will be shown.

The next time the **Software update** page is opened, the message **Configuration upload OK** confirms that the upload was successful. The message **Configuration upload failed** indicates that the file did not load properly (perhaps the file specified was not from the same type of device). Repeat the upload and use another file if necessary.

Note

The new configuration will be active after the VideoJet 8000 is restarted.

Enter the current IP address followed by `/reset`.

Function test

The VideoJet 8000 offers a number of configuration options. Therefore you should check that it works properly after installation and configuration.

This is the only way to ensure that the VideoJet 8000 will function as intended in an alarm situation.

Check the following functions (among other things):

- Can the VideoJet 8000 can be dialed up remotely?
- Does the VideoJet 8000 transmit all the data required?
- Does the VideoJet 8000 respond as configured to alarm events?
- Is it possible to control peripheral devices if necessary?

Operation

Operation with Microsoft Internet Explorer

A computer with Microsoft Internet Explorer (version 5.5 or later) can be used to receive live images from the VideoJet 8000, control cameras or other peripherals and replay sequences stored on the local hard drive.

 **Note**

In order for the computer to decode live video images, the special ActiveX control must be installed. The latest version of the ActiveX control can be obtained from VCS customer service or from the download pages on the Internet site at www.vcs.com.

Make sure the graphic card is set to 16 or 32 bit color depth and the Microsoft Virtual Machine is installed on your computer.

Instructions for using the Web browser will be found in its online help.

System requirements

- Microsoft Internet Explorer (version 5.5 or higher)
- Monitor resolution 1024 x 768 pixels
- Network access (intranet or Internet)

MPEG decoder installation

 **Note**

In order to decode MPEG encoded video data, an appropriate MPEG decoder must be installed on the computer, such as that used for playing DVD movies. If this is not the case, a decoder of this type will be found on the software CD included with delivery.

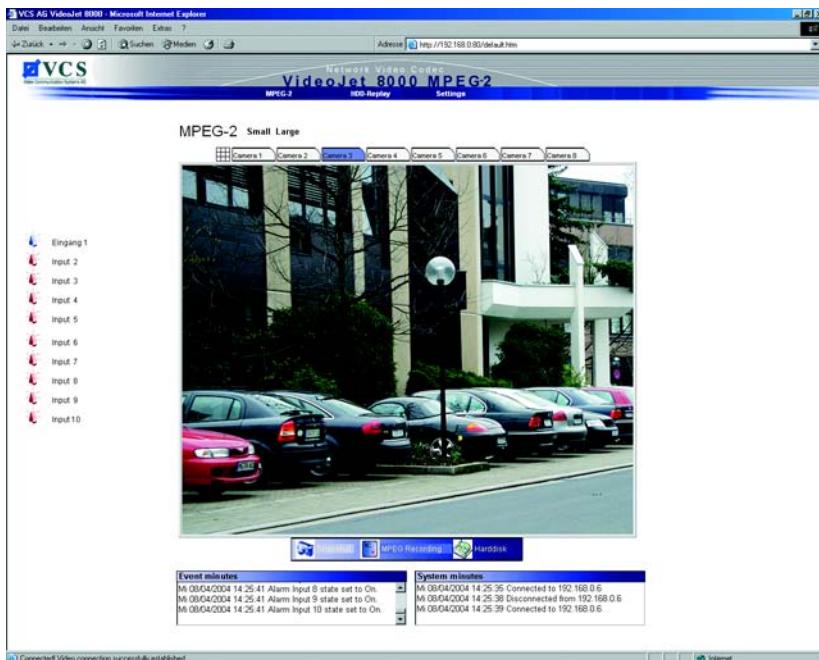
- Insert the CD into the CD-ROM drive of the computer. The CD will start automatically. If the CD does not start automatically, open the root directory of the CD in Windows Explorer and double click **MPEGAx.exe**.
- Follow the instructions on the screen.

Establishing the connection

The VideoJet 8000 must be provided with a valid IP address to operate on your network.

The following default address has been pre-set at the factory: **192.168.0.1**

- Start the Web browser.
- Enter the IP address of the VideoJet 8000 as the URL. The connection will be established, and after a short time the Livepage with the video image will appear.



Note

If the connection cannot be established, this may be because the unit selected is already busy with another remote station. Depending upon the network configuration and the individual units, a transmitter can serve up to five receivers at the same time.

VideoJet 8000 password protection

If the VideoJet 8000 is password-protected against unauthorized access, a password dialog will appear first.

Note

Configuration work can only be performed on a password-protected VideoJet 8000 unit if the **service** user is logged on.

- Enter the user name and the associated password in the appropriate fields.
- Click **OK**. If the password is entered correctly, the Livepage with the video image will be shown.

Image selection

With a connection is established, the video image will be displayed in the center of the browser window. Depending on the configuration, additional information will be shown adjacent to and under the video image (see page 106).

The images for each camera can either be viewed in full screen mode or images from all the cameras can be arranged in 8 tiles on the screen.

You can choose between two settings for the total size of the video image to optimize the display for a particular monitor size.

- Click one of the links **Camera 1** to **Camera 8** above the video image to view the corresponding camera image.
- Click on one of the links **Small** or **Large** above the video image to display the image in the selected resolution and size.
- Click the icon for multiple display above the video image to view the images from all the cameras. The tile at the lower right remains empty.
- Clicking one of the image tiles in the multiple display shows the feed from that camera as a full-sized image.



Alarm

In the event of an alarm, a red alarm symbol for the triggering alarm input is displayed next to the video image. The display of alarms and other details depends on the configuration of the unit (see page 106).

Event minutes

Events such as the triggering or end of alarms are shown in the **Event minutes** field. These messages can be saved automatically in a log file (see page 108).

System minutes

The **System minutes** field contains information about the operating status of the VideoJet 8000 and the connection. These messages can be saved automatically in a log file (see page 108).

Control functions

Control options for peripheral devices (such as a pan and tilt head or a dome camera) depend on the type of device installed and the configuration of the VideoJet 8000.

If a controllable device is connected to the VideoJet 8000 and configured, the controls for the peripheral are displayed next to the video image.



- To control a peripheral device click the associated operating elements.
- Move the pointer over the video image. Further options for peripheral device control will be displayed using the pointer.

Saving snapshots

Individual images from the current video sequence on the Livepage can be saved on the computer hard drive in JPEG format.

- Click the **Snapshot** icon. The image will be saved, the image size will be 352 × 288 pixels. The storage location depends on the configuration of the VideoJet 8000 (see page 108).



Recording video sequences

Segments from the current video sequence on the Livepage can be saved on the computer hard drive in MPEG format.

- Click the **MPEG Recording** icon. Saving begins immediately. The storage location depends on the configuration of the VideoJet 8000 (see page 108). A recording in progress is indicated by the blinking red dot on the icon.



- Click the **MPEG Recording** icon again. Saving will be terminated.

Note

In order to decode MPEG encoded video data, an appropriate MPEG decoder must be installed on the computer, such as that used for playing DVD movies. If necessary, the required software and controls can be installed from the CD provided (see the list of components supplied, 9). For more information on installing the MPEG decoder, see page 27.

Image resolution

The sequences will be recorded at the resolution specified in the encoder settings (see pages 43 and 80).

Recordings in progress

During automatic recording to the hard drive of the VideoJet 8000 by one of the background programs, the hard drive icon under the video image on the Livepage changes.

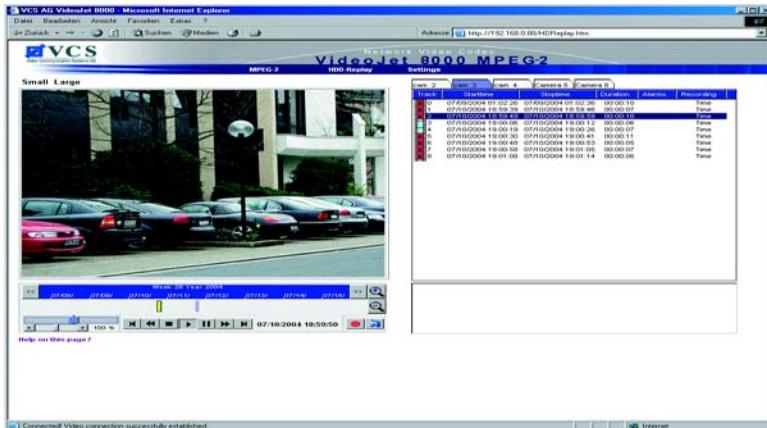
It is animated to indicate that a recording is in progress. If no recording is taking place the icon is static.



Playback of recorded sequences

You can go to the playback page for recorded video sequences from the Livepage, the overview and in expert mode.

- Click the **HDD Replay** link in the navigation bar at the top of the window. The playback page will be displayed.



Recording selection

First select the camera on the right whose recording you wish to review.

All saved sequences on the partition assigned to this camera will be listed. A sequential number, the beginning and end times for the recording, the recording length, the number of alarms and the recording type will be shown for each sequence.

- Click a camera name to list the recordings for that camera.
- Click a list entry. Playback of the selected sequence will begin immediately in the video window.

Controlling playback



A time bar is shown below the video image to indicate the progress of sequence. After the **HDD Replay** page is loaded, the blue bar shows the current day, week and year and a time scale with two hour intervals.

If a particular sequence is selected for playback by clicking, the time range to which it belongs is shown in the bar, with the selected sequence indicated in blue with a green border. The yellow scroll thumb indicates the position of the image currently shown in the sequence.

The time bar offers various navigation options within and between the sequences.

- Change the time section displayed by clicking the arrow buttons or by dragging the blue area to the left or right using the mouse.
- Change the time intervals displayed by clicking the zoom buttons (magnifying glass icons). Intervals of three days, one day, two hours, five minutes or one minute can be chosen.
- Select another sequence for playback by clicking the corresponding blue marking. The sequence will be highlighted with a green border to indicate it as the active sequence.

If necessary, drag the yellow bar to the time position at which playback is to start. Detailed information on the date and time is shown below the bar.

The buttons below the video image can be used to control playback. The buttons have the following functions:

Jump to the beginning of the video sequence,
jump to the previous alarm

Fast rewind,
rewind in intervals of 0.5 sec (only in Pause mode)

Stop



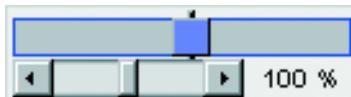
Play



Pause

Fast forward,
step forward frame by frame (only in Pause mode)Jump to the end of the video sequence,
jump to the next alarm

The speed can be controlled using the scroll thumbs. The upper control is used for fast search within sequences. After it is released, it jumps back to its initial position. The lower control determines the playback speed: 100% indicates normal speed, lower values and higher values reduce or increase the playback speed.



Red bars on the blue sequence fields indicate triggered alarm times. You can jump quickly to the alarms using the control buttons or the yellow scroll thumb.

Backup

You can back up video recordings from the VideoJet 8000 hard drive directly to the hard drive of your computer.

First select the sequence to save as described above. The following buttons are available for backup:



Back up a sequence to the hard drive of your computer



Back up a snapshot to the hard drive of your computer

- Start the playback of the sequence you want to back up as a whole or in parts.
- Click the icon for backing up a sequence. Saving begins immediately and is indicated by the blinking of the icon on the button.
- Click the icon for sequence backup again to stop saving.

This procedure can be repeated within a sequence to back up several segments of a longer sequence.

- Click the button for backing up a snapshot to save only snapshots from the sequence being played to your hard drive.

The snapshots will be shown immediately in the area to the right of the button.

The location for saving sequences and snapshots can be specified in the VideoJet 8000 settings (see page 108).

MPEG viewer installation

Saved sequences can also be displayed using the MPEG viewer from VCS. You will find the VCS MPEG viewer on the accompanying software CD.

Note

In order to decode MPEG encoded video data, an appropriate MPEG decoder must be installed on the computer, such as that used for playing DVD movies. The current version of the MPEG player is on the accompanying software CD. It is also available from VCS Customer Service or it can be obtained from the download area at www.vcs.com. For more information on installing the MPEG decoder, see page 27.

- Insert the CD into the CD-ROM drive of the computer. If the CD does not start automatically, open it in Windows Explorer.
- Open the directory entitled **MPEG-Viewer** and copy the **MPEGViewer.exe** file to your hard drive.
- You can start the MPEG viewer by double-clicking the file **MPEGViewer.exe**.

Hardware connections between VCS units

A VideoJet 8000 with a camera connected to it can be used as a transmitter and an MPEG-2 hardware decoder from VCS (such as the VIP 1000) with a connected monitor as a receiver using an Ethernet network connection. This way it is possible to cover large distances without installation or cabling challenges.

Installation

VideoJet units are designed to connect to one another automatically with the corresponding configuration. This only requires that they be part of a closed network. Proceed as follows to install the units:

- Connect the units to the closed network using Ethernet cables.
- Connect them to the mains supply.

Note

Check that the units are configured correctly for your network and that the parameter **Video receiver IP address** or **Alarm IP Address** for the VideoJet 8000 is set to the IP address of the receiver (see pages 46 and 98).

Establishing the connection

There are three options for establishing a connection between a VideoJet 8000 transmitter and a VCS receiver on a closed network:

- in the event of an alarm,
- using a terminal program or
- a Web browser

Connect on alarm

The VideoJet 8000 can be configured to connect automatically to a receiver when an alarm is triggered (see page 97). After a short time, the live video image from the transmitter will be shown on the connected monitor.

This option can also be used to connect a VideoJet 8000 and a VCS receiver using a switch connected to the alarm input. In this case, no computer is needed to establish the connection.

Connecting with a terminal program

Various requirements must be met in order to operate using a terminal program (see page 23).

- Start the terminal program. Enter the command **i** in the main menu to switch to the **IP** menu.
- Enter the command **r** in the **IP** menu to change the remote IP address, then enter the IP address of the device to connect to.
- Enter the command **a** in the **IP** menu to activate automatic connection.

Connecting with a Web browser

Various requirements must be met in order to operate using a Web program (see page 27).

- Use the Web browser to connect to the receiver. Its home page will be displayed.
- Select a transmitter from the **Available sender units** list. A JPEG snapshot of the video source selected will be displayed on the page.
- Click **Connect** to begin showing the video images on the connected monitor.

Closing the connection

The connection may be closed using a terminal program or Web browser.

Closing the connection with a terminal program

- Start the terminal program. Enter the command **i** in the main menu to switch to the **IP** menu.
- Enter the command **a** in the **IP** menu to toggle off the automatic connection.

Closing the connection with a Web browser

- Use the Web browser to connect to the receiver. Its home page will be displayed.
- Click **Disconnect** to stop the video display on the monitor.

Operation with decoder software

The VideoJet 8000 video server and VIDOS software from VCS together comprise a high-performance system solution.

VIDOS is software for operating, controlling and administering CCTV installations (such as surveillance systems) at remote locations. It runs under Microsoft Windows operating systems. Its main job is decoding video, audio and control data from a remote transmitter.

There are many options available for operation and configuration when using a VideoJet 8000 with VIDOS. See the software documentation for more details.

Front panel controls

The front panel of the VideoJet 8000 has various operating and display elements (see page 15). You can view some of the key configuration parameters on the display. However, the parameters cannot be changed here.

- Press the **Menu/Exit** button. The menu will be opened. You will see the first parameter (**IP Address**) and the set value.
- Use the arrow keys to scroll the view to other parameters.
- When you are finished, press the **Menu/Exit** button again to exit the menu.

Note

The **Set** button is provided for future functional extensions.

Parameters in the display menu

Brief descriptions of the parameters in the display menu are given below.

IP Address

The current IP address of the unit.

Subnet Mask

The current subnet mask of the unit.

Gateway

The current gateway IP address of the unit.

MAC address

The current MAC address of the unit.

Ethernet link

Quality of the network connection.

Current connections

Displays the total number of current connections via the network.

Video locked

Shows the camera inputs currently receiving a video signal (designation **O**).

Input pin states

Shows the alarm inputs currently receiving an alarm (designation **H**).

Motion Alarm

Shows the camera inputs currently receiving a motion signal (designation **H**).

EthTX**EthRX**

Current data transmission rate from and to the VideoJet 8000.

HDD Throughput

Current recording rate on the VideoJet 8000 hard drive.

SW version

Software version number for the VideoJet 8000.

HW version

Hardware version number for the VideoJet 8000.

HDD Capacity

Current free space on the hard drive.

COM1

Information on the serial interface (protocol, interface parameters).

Fan 1**Fan 2**

Information on the operating state of both fans on the rear side of the unit.

Date**Time**

Information on the date and time settings.

System uptime

Operating time of the unit since it was last switched on or reset (in days, hours, minutes and seconds).

Maintenance and Upgrades

Testing the network connection

The `ping` command can be used to check the connection between two IP addresses. This allows you to test whether a unit is active on the network.

- Open the DOS command prompt.
- Type `ping` followed by the IP address of the unit.

If the unit is found, the response appears as `Reply from ...` followed by the number of bytes sent and the transmission time in milliseconds. Otherwise, the unit cannot be accessed via the network. This might be because

- The unit is not properly connected to the network. Check the cable connections in this case.
- The unit is not properly integrated into the network. Please check the IP address, subnet address and gateway address.

Repairs



Warning!

Never open the casing of the VideoJet 8000 yourself, there are no user serviceable parts inside.

Ensure that maintenance or repair work is performed only by qualified personnel (electrical technicians), or contact your VCS service center.

Transfer and disposal

The VideoJet 8000 should only be passed on together with this manual.

The unit contains environmentally hazardous materials that must be disposed of according to law.

Defective or superfluous units and parts should be disposed of professionally or taken to your local collection point for hazardous materials.

Appendix

Troubleshooting

If you cannot correct a malfunction, please contact your supplier, system integrator or VCS customer service (Support@vcs.com).

The version numbers of the internal processors can be viewed on a special page. Please note this information before contacting Customer Service.

- In the address field of the browser, append `/version.htm` to the IP address of the unit (e.g. `192.168.0.80/version.htm`) and press Enter.
- Write down the information or print out the page.

The following table is intended to help you identify the causes of malfunctions and correct them where possible.

Problem	Possible Causes	Solution
No connection between unit and terminal program.	Improper cable connections.	Check all cables, plugs, contacts and connections.
	The computer's serial interface is not connected.	Check the other serial interfaces.
	Interface parameters do not match.	Select a different COM port if necessary and make sure that the computer's interface parameters match those of the unit. Try the following standard parameters: 19,200 baud, 8 data bits, no parity, 1 stop bit. After that, switch off the power to the unit, wait a few seconds and switch it on again.
No image transmission to the destination.	Defective camera.	Connect a local monitor to the camera and check the camera function.
	Faulty cable connections.	Check all cables, plugs, contacts and connections.

Problem	Possible Causes	Solution
No connection established, no picture transmission.	The unit's configuration.	Check all settings.
	Faulty installation.	Check all cables, plugs, contacts and connections.
	Wrong IP address.	Check the IP address (terminal program).
	Faulty data transmission within the LAN.	Check the network data transmission with the ping command.
	The maximum number of connections has been reached.	Wait until there is a free connection and contact the transmitter again.
The unit does not report an alarm.	It is not selected as "alarm input".	Select alarm input on the Alarm sources configuration page.
	No alarm action selected.	Define the desired alarm actions on the Alarm connections configuration page. If necessary, change the IP address.
Control of PTZ cameras or other devices is not possible.	The cable connection between the serial interface and the connected device is incorrect.	Check all cable connections and ensure all plugs are properly plugged in.
	The interface parameters conflict with those of the other device connected.	Make sure the settings of all devices involved are compatible.
The unit is no longer ready for operation after a firmware upload.	Power failure during programming by the update file.	Have the unit checked by Customer Service and replaced if necessary.

LEDs

The VideoJet 8000 network video server is equipped with several LEDs that show the operating status and can give indications of possible malfunctions:

Power

- | | |
|-----------------|---|
| Not lit: | Device is switched off. |
| Lit green: | The unit is switched on, no connection. |
| Blinking green: | 600 ms (50:50) = 1 active connection
300 ms (50:50) = 2 active connections
150 ms (50:50) = 3 or more connections |

HDD

- | | |
|---------------|--|
| Blinking red: | Data from and to the hard drive is taking place. |
|---------------|--|

Failure

- | | |
|---------------|---------------------------------|
| Blinking red: | Hardware error (fan defective). |
|---------------|---------------------------------|

LAN interface (rear panel)

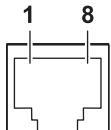
- | | |
|----------------------|---|
| Green LED lit: | Physical connection to the network established. |
| Orange LED blinking: | Data transfer via the network. |

RS232/RS422/RS485 interface

Options for using the serial interface include transparent data transfer, control of connected devices or operation of the unit with a terminal program. Depending on the setting, the interface works with the RS232 or RS422/485 protocol. The protocol used depends on the current configuration (see page 101).

RJ45 connector pin assignments

The pin assignments depend on the protocol used.



Pin	RS232 Protocol	RS422/485 Protocol
1	RxD (receive data)	RxD+ (receive data plus)
2	CTS (clear to send)	RxD- (receive data minus)
3	–	–
4	–	–
5	GND (ground)	GND (ground)
6	–	–
7	TxD (transmit data)	TxD- (transmit data minus)
8	RTS (ready to send)	TxD+ (transmit data plus)

Glossary

Brief explanations of some of the terms and abbreviations found in this user guide are given below.

10/100 Base-T	IEEE 802.3 specification for 10 or 100 MBit/s Ethernet
ARP	Address Resolution Protocol: a protocol for mapping MAC and IP addresses
baud rate	The data transfer rate
Bit/s	Bits per second, the actual data rate
CIF	Common Intermediate Format, video format with 352 × 288 pixels
DHCP	Dynamic Host Configuration Protocol: a protocol for dynamic allocation of IP addresses
DNS	Domain Name Service
FTP	File Transfer Protocol
full duplex	Simultaneous data transmission in both directions (sending and receiving)
GOP	Group of pictures
HTTP	Hypertext Transfer Protocol
HTML	Hypertext Markup Language
hub	Multiplexer to connect a number of Ethernet units to a 10 BASE-T segment
ICMP	Internet Control Message Protocol
ID	Identification: a machine-readable character sequence
IEEE	Institute of Electrical and Electronics Engineers
IGMP	Internet Group Management Protocol
Internet Protocol	The main protocol used on the Internet. Together with the Transfer Control Protocol (TCP), it constitutes "TCP/IP"
IP	See "Internet Protocol"
IP address	A 4-byte number uniquely defining each device on the Internet. It is usually written in dotted decimal notation with periods separating the bytes, for example "209.130.2.193".
ISDN	Integrated Services Digital Network
JPEG	An encoding process for still images (Joint Photographic Experts Group)
kBit/s	Kilobits per second, the actual data rate
LAN	See Local area network

Local area network	A communications network serving users within a limited geographical area, such as a building or a university campus. It is controlled by a network operating system and uses a transfer protocol.
MAC	Media Access Control
MPEG-2	Enhanced video/audio compression standard, with high-level compression that images of studio quality possible. In the meanwhile it has become established as a broadcasting standard.
netmask	A mask that explains which part of an IP address is the network address and which part comprises the host address. It is usually written in dotted decimal notation with periods separating the bytes, for example "255.255.255.192".
Network Time Protocol	A protocol or application service for synchronizing computer clocks over the Internet
NTP	See Network Time Protocol
parameters	Values used for configuration
picture	A video image that has been digitized at a given resolution
PPP	See point-to-point protocol
point-to-point protocol	A protocol allowing a computer using TCP/IP to connect directly to the Internet
QCIF	Quarter CIF, a video format with 176×144 pixels
RS232/RS422/RS485	Standards for serial data transmission
Realtime Transport Protocol	A transmission protocol for realtime video and audio
RTP	See Realtime Transport Protocol
SNMP	Simple Network Management Protocol
subnet mask	See netmask
TCP	Transfer Control Protocol
Telnet	Login protocol with which users can log on to a remote computer (host) on the Internet
UDP	User Datagram Protocol
URL	Uniform Resource Locator
UTP	Unshielded Twisted Pair
WAN	See wide area network
wide area network	A long distance link used to extend or connect remotely located local area networks

Specifications

Unit

Operating voltage	90 to 250 V AC, 50/60 Hz
Current consumption	max. 60 VA
LAN interface	1 × Ethernet 10/100/1000 Base-T, automatic adaptation, half/full duplex, RJ45
ISDN interface	1 × RJ45, S ₀ base rate (supported by future device versions)
USB interface	1 × USB 2.0 (supported by future device versions)
Data interface	1 × RS232/RS422/RS485, bidirectional, RJ45
Alarm inputs	10 × push-in terminals (non-isolated closing contact), max. trip resistance 10 ohms
Video inputs	8 × BNC jack 0.7 to 1.2 V _{p-p} , 75 ohms switchable, PAL/NTSC
Indicators	3 × LED (operating voltage, hard drive activity, hardware failure)
Storage medium	1 × hard drive, 120, 240 or 600 GB
Operating conditions	Temperature 0 to +50°C, relative humidity 20 to 80%, non-precipitating Altitude 0 to 3,000 m
Storage conditions	Temperature -20 to +60 °C, relative humidity: 0 to 95%, non-precipitating max. altitude 10,000 m
Regulatory approvals	CE: IEC 60950; UL 1950; J 60950; AS/NZS 3548; EN 55103-1, -2; EN 55130-4; EN 55022; EN 55024; EN 61000-3-2; EN 61000-3-3; FCC 47 CFR Section 1 Part 15
Dimensions (w × h × l)	409.2 × 48.6 × 351.5 mm (including base and BNC connections)
Weight	approx. 6.0 kg (with 240 GB hard drive)

Protocols/standards

Video standards	PAL, NTSC
Video coding protocols	ISO/IEC 13818-2 (MPEG-2) MP@ML; M-JPEG
Video data rate	1 kBit/s to 5 MBit/s per channel
Image resolutions	720 × 576 pixels (full D1: 50/60 fields/s*) 352 × 288 pixels (CIF: 25/30 fields/s*) * depends on image data size
GOP structure	I, IP, IPB, IPBB
Total delay (IP)	198/180 ms (PAL/NTSC)
Refresh rate	1 to 50/60 fields/s adjustable (PAL/NTSC) Field/image-based coding
Multiplex standard	ISO/IEC 13818-1 (MPEG-2)
Network protocols	RTP, Telnet, UDP, TCP, IP, HTTP, IGMP, ICMP, ARP, DHCP, SNMP

Index

A

activating partitions 60, 95
ActiveX 27, 113
actuator 20
Alarm 42
alarm 116
alarm area 39, 100
Alarm connections 45
alarm input 20, 42, 69
alarm input name 42
alarm input status 42
alarm inputs 14
alarm IP address 45
alarm message 77
alarm recording 55, 90
Alarm sources 96
alarm tracks 57, 90, 92
authorization levels 62, 73
automatic connection 46, 98
average 39, 100

B

background image 69
backup 122
banners 68, 107
basic data 61
baud rate 40
browser window 115

C

cables 17
camera configuration 36
camera name 36, 76
camera names 76
camera selection 115
cameras 20
changes 35, 71
closing connections 126
closing contact 20
color depth 10, 27, 113
COM1 40, 101
configuration 27, 110
configuration mode 29
connecting 124
connection 28, 114
connection on alarm 45
control 40, 101
control cabinet installation 11, 17, 18
control functions 117
Conventions 5
create partition 84

D

danger 7
data bits 41
data interface 21
data terminal 23
data transfer 15

date and time 74
date format 74
daylight savings time 75
decoder software 126
default camera 46, 98
default settings 38, 99
default values 38, 99
deleting partitions 51, 60, 86, 95
device overview 29, 34
display 15
display menu 127
display stamping 76
DNS server 103
dome camera 21
DVD standard 11
DVR 11

E

echo 23
electromagnetic compatibility 6
encoder number 94
encoder numbering 43
encoding 11
EPROM 109
establishing the connection 28, 114
Ethernet 64
event log 116
expert mode 30, 71

F

false alarms 38, 99
frame rate 53, 56, 88, 91
front panel 15, 127

function test 111

G

gateway 65, 103
GOP 80

H

half-duplex mode 41
hardware error 15
HDD playback 120
heat 17, 18

I

identification 6, 62, 72
IGMP 66, 105
image quality 66, 105
image resolution 118
image selection 115
input signal 36
installation 8, 18
installation location 17
installation overview 19
installation requirements 17
Installation Wizard 29, 31
interface 14, 136
interface mode 41
interface parameters 40
internal clock 63, 74
IP address 24, 65, 103

L

language 62, 74
language selection 74
LED 15

- light reflections 38
light variation 38
linear mode 54, 56, 59, 88, 91, 94
live video images 27, 113
Livepage 33, 68
local sensitivity 39, 100
logo graphic 69
low voltage directive 6
- M**
- main functions 13
mains supply 22
maintenance 8
monitor resolution 27, 113
motion alarm 37
motion alarm status 39, 100
motion detector 38, 99
mounting kit 18
MPEG decoder 27, 113, 118
MPEG recording 118
MPEG viewer 123
MPEG-2 66
MPEG-2 encoder configuration 43, 78
multicast 65, 104
multicast connection 65, 104
multicast function 11
multicast port 67, 105
multi-unicast 65, 104
- N**
- name 62, 72
network 20, 64, 102
network check 131
- network connection 22
NTP server 63, 75
- O**
- operation 7, 113
overview of functions 11
- P**
- parameters 25
parity 41
partition 47, 83, 87
partition data 50
partition name 58, 93
partitioning data 83
password 29, 62, 73, 115
password protection 62, 73
password settings 73
peripheral device control 117
pin assignments 21, 136
playback 120
playback button 121
playback control 121
post-alarm time 53, 56, 88, 91
power switch 22
pre-alarm recording time 56, 91
Profile 43
profile configuration 80
profiles 79
protocol 21, 41, 102
protocols 140
- R**
- Rear panel 14
receiver 11

receiver password 46, 98
recorder 52
recording activity 54, 57, 89
recording data rate 59, 94
recording in progress 119
recording resolution 59, 94
recording scheduler 87
recording tracks 53
recording type 94
Regulations 5
remote control 12
repair 8
repairs 131
ring mode 54, 56, 59, 88, 91, 94
router 67, 105
RS-232 136
RS-422/485 136

S

safety 7
saving alarm messages 69
saving system messages 70
select area 38, 100
sensor fields 38, 99
Serial number 6
serial port function 40, 101
Signal source 20
snapshots 12, 118
SNMP 97
Specifications 139
standards 140
startup 9
stop bits 41

subnet mask 65, 103
supplied components 9
switch off 22
switch on 22
Symbols 5
synchronized time 63, 74
system date 63
system log 116
system settings 61
system time 63, 74

T

tabletop unit 11, 17
test 111
thermal load 17
time 63, 74
time format 63
time server 63, 75
time signal 63, 75
time zone 63, 75
timed recording 52, 87
total size 59, 94
total time 60, 95
transmission parameters 23
transmission protocols 21
transmission rate 40, 101
transparent 40
TTL 67, 105

U

unicast 65, 104
unit date 74
unit ID 62, 72

unit name 62, 72
unit time 74
upload file 109
URL 28, 114
user 23
user name 29, 73, 115

V

ventilation 18
version 106
video inputs 14
video loss alarm 36, 97
video sensor 37, 98
video sequence recording 118
video sources 20
voltage level 42

W

watermarking 77



Video Communication Systems AG

VCS Video Communication Systems AG
Forchheimer Strasse 4
90425 Nuremberg, Germany

Phone: +49 911 93456-0

Fax: +49 911 93456-66

E-mail: info@vcs.com

<http://www.vcs.com>

ID No.: 2906/0804/e/1